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ABSTRACT

Intended for parents and teachers of blind, multihandicapped children in special schools; the booklet outlines practical suggestions for teaching children with varying degrees of handicap. Sections cover the following areas (subtopics in parentheses): visual handicap (degrees of blindness); motor development and mobility (suggestions for development of head control, sitting, further motor development, and play); sense of smell; use of hands (suggestions for encouraging purposeful use of hands, dropping, tactile scanning, throwing, opening and closing lids, and hand muscle tone and fine finger use); the development of visual ability and interpretation from infancy to 2 years; visual efficiency training (visual attention, fixation, tracking, convergence training, accommodation, eye contact, hand/eye coordination, scanning, and eye/foot, eye/body coordination); auditory training (interpretation of sounds, rhythm, and orientation); language and speech (suggestions to encourage an interest in making sounds); play; toilet training (suggestions for planning and establishing a toilet training routine); feeding (general hints and hints for feeding children with feeding problems); drinking; self help skills (dressing); behavior difficulties (head banging, screaming, the child who doesn't want to be handled, hyperkinetic children, "remote" children, obsessions, and discipline); instructional objectives; and education. (SBH)

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GUIDELINES FOR TEACHERS AND PARENTS OF VISUALLY HANDICAPPED CHILDREN WITH ADDITIONAL HANDICAPS

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CONTENTS

	Page
Introduction	1
Visual Handicap	1
Beginnings	2
Motor Development and Mobility	3
Mobility	6
Sense and Smell	8
Use of Hands	8
Visual Stimulation	12
Training Visual Efficiency	14
Auditory Training	17
Language and Speech	19
Play	20
Toilet Training	22
General Hints on Feeding and Drinking	24
Self-Help Skills	27
Behaviour Difficulties	29
Where Do We Go Now?	32
Education	33
Bibliography	35

INTRODUCTION

Following numerous requests to the R.N.I.B., this booklet aims to offer some guidance to the growing number of teachers of blind, multi-handicapped children in special schools wanting to develop suitable "programmes". We hope that parents, too, will find its suggestions helpful, and will be encouraged to become more actively involved in their child's development.

The ideas in this booklet are based on the practical experience of people who have lived and worked with blind, multi-handicapped children. There is no intention of providing a "development scale" by which the child's progress may be assessed; it is simply an attempt to SHARE useful ideas which have worked with a large number of children, with varying degrees of handicap. Each child, being an individual, will respond in different ways and at different times.

We realise there are many omissions, and we have no simple answers to the problems of some of these children. In the last resort the possibility of progress depends on the patience, understanding, skill and ingenuity of parents and teachers.

As the authors spend most of their working life on the floor, playing with children, we thought it more appropriate to be "down to earth" and avoid professional jargon as much as possible.

VISUAL HANDICAP

1. It must be realised that even though a child is registered as blind, it is probable that he may have some small degree of residual vision. Blindness might be categorised into the following:

(*a*) *Total Blindness*—Only about 10% of all registered blind people are totally blind.

(*b*) *Perception of Light* (P.L.)—Aware of the difference between light and darkness. This is comparable to the awareness of light which a seeing person has with his eyes closed.

(*c*) *Sees Hand Movements at 6 in. or more* (H.M.)—This can be compared with that of a seeing person, looking with his eyes closed, towards a reasonably bright light, who is aware of hand movements when they pass before the light. He *may* be aware of the presence of very nearby objects.

(*d*) *Counts Fingers* (C.F.)—A person would be able to count fingers held at varying distances from his eyes.

(*e*) Visual Acuity measured on the Snellen Chart.

$^{6}/_{6}$ —Normal vision.

$^{1}/_{60}$, $^{2}/_{60}$, $^{3}/_{60}$—Sees at 1, 2 or 3 metres what a person with normal vision sees at 60 metres. People with these visual acuities will be registered as blind.

$^{4}/_{60}$, $^{5}/_{60}$, $^{6}/_{60}$—People with these acuities are often registered as partially-sighted, sometimes as blind.

(*f*) People with certain eye defects can only see peripherally. Others can only see centrally. These people may have a higher visual acuity but still be registered as visually-handicapped because of the defect in their field of vision.

2. Children with different eye defects see in different ways, so it is important to know what the eye defect is, and what visual limitations it causes. Children with the same defect may use their residual vision differently. School Medical Offices have access to the information about the child's visual defect; the information should be in the school reports, but it is not always there.

3. In general, children who can work by print if given proper aids will be classified as educationally partially-sighted; and children who work mainly or entirely by non-sighted methods, *e.g.* braille will be classified as educationally blind. Only a minority of these will be totally blind (see above).

4. All these children will be visually handicapped but, for simplicity, we shall refer in this booklet to *blind* children, rather than *visually handicapped* children.

5. Useful booklets can be obtained from Exhall Grange School and the Partially Sighted Society (see Bibliography).

BEGINNINGS

As parents and teachers, we are anxious that the children entrusted to our care, whatever the seriousness of their handicaps, should make the most of their remaining abilities, however limited. This implies a many-sided approach. Let us begin with a question.

WHO AM I?

Throughout life all of us have a developing knowledge of ourselves, which started in the cradle. Normally a baby begins to learn through the close physical contact he has with his mother, the sound of her voice, the smell of her body, the touch of her hands, and the sight of her as she comes to pick him up, feed and change him. Communication by smiles, facial expression, touch and voice begins to be established. The child regards his fingers and toes, and realises they are part of him, unlike his toys which can be lost. Through these and many other ordinary experiences which begin in his early weeks, and others which continue into adulthood, a child begins to be aware of:

(*a*) His own body and its different parts.
(*b*) His body parts in relation to each other.
(*c*) What he can do with his body, *e.g.* move in various ways, or use his hands and his voice.
(*d*) His body being separate from others.
(*e*) How his own body is at any time in relation to other things.
(*f*) How other things are in relation to each other.
(*g*) Other people and how he feels about them.
(*h*) How he can influence the world of objects and people by crying, talking, or by using his hands.

As a result of these early aspects of learning about life, the child learns about himself as a person with feelings and emotions, all of which are influenced by his abilities, his upbringing, the circumstances of his contact with other people, and the skill with which he learns to control his body and his actions.

"Out of a good and positive body-image comes a good and positive self-concept. Out of warm psychological settings and success also comes a positive self-concept. Out of positive self-concepts come the strong ego forces which make it possible for human beings to adjust well in the complex society in which we live. This is the story of the normal child. It is the story we would wish for all children" (Cruickshank 1967).

The children we are thinking of in this booklet may have many handicaps, as well as the visual one, all providing barriers which prevent them achieving a true knowledge of their own identity. Physical handicap hinders their experience of movement and touch, a hearing loss prevents effective speech understanding, a mental handicap slows down their development and interferes with their ability to make sense of the experiences presented to them. A visual handicap will mean they cannot interpret visually, or that they cannot see, or see poorly, their own bodies and other people's, or how things are in relation to themselves or each other. There are fewer ways of knowing what people are doing and the possibility of imitation is lessened. People may not react normally to them because of the lack of eye contact, facial expression, gesture, and so on.

One is led to suspect that some of the multi-handicapped blind children known to us may have a very incomplete awareness of their own identity. For instance, a boy of twelve who seems to spend his time as a "wanderer in space" appearing to have little idea of how he can affect his environment. His hands are "floppy". He has been handling, tapping and shaking objects for years and he has not moved on to a more advanced stage of play. He limits even this experimentation, and has no idea that he can manipulate his hands and the objects to squeeze, push, switch or screw. This child repeats every word, phrase or question put to him, and occasionally, if one is lucky, he will reply appropriately to certain questions. He will sing songs well and repeatedly. However, he does not use speech to make requests, ask questions, or gain attention in any way. He objects by refusing to move, or puts his hands in his ears, or screams. His most positive response is, in fact, negative. He gives the impression of having little idea of who or where he is, or how he fits into the world around him. One could quote varying examples.

IDEAS

The natural beginning for giving our blind child the sort of experiences he will need (and he may have one or more other handicaps) is with his mother when he is a baby or toddler. The following are some general ideas:

(*a*) He needs to be handled—cuddle him, carry him around, etc., so that he begins to be aware of "self" and "mother" or "other special person" or "other people". At this point he really needs one person to relate to in a special way.

(*b*) Play games on your lap, including rhythmical movements, like swaying, bouncing, rocking. Songs or rhymes which involve the body and end in a "tickle" like "Round and Round the Garden" are appropriate.

(*c*) Blow gently, or blow raspberries on his feet, hands, back, tummy, neck, ears.

(*d*) Tickle your fingers all over his body.

(*e*) Brush all over his body with a soft brush.

(*f*) Smooth him with the flat of your hands, using baby cream or light scented oil, or a light dusting of talc.

(*g*) Let him be on the floor, in your arms with very few clothes on (especially remove socks), or in water, etc. Give him the chance, at whatever stage of motor development he is, to feel his whole body against other people, or against surfaces. Make sure, if he is fairly static, to vary his position and the surface—carpet, linoleum, cushion, blanket, grass and so on. Make sure it is pleasant.

(*h*) In the bath, gently play at sifting water over his shoulders, back, hands, etc. When he is being dried let him help you rub the towel over him, pat talcum powder on to his tummy, etc.

(*i*) If he hasn't naturally found his feet, touch them, name them, play with them, stroke them with a brush, on soles, between toes, over arches, up leg, etc., tickle and blow on them, then put his hands on them.

(*j*) Touch other parts of the body, name them and put his hands on each part.

(*k*) Sing lots of rhymes and songs involving touching parts of his body.

(*l*) Say "Where is your hair?" (leg, arm, nose, etc.). At first show him how to touch each as requested, but eventually expect him to do it on request.

(*m*) As he becomes more mobile, roll with him on the floor, let him climb over you and feel how your body is constructed, its size and how it moves. (Dads usually enjoy doing this). Have him riding on your back as you crawl around or give him a pick-a-back. When he wants to be on his feet, walk with him on your toes.

(*n*) Compare parts of the body, *e.g.*, "Mummy's foot", "John's foot", or "Mummy's hair", "John's hair", and so on.

(*o*) Blind children sometimes grow up without a complete awareness of the strength and power of their hands. Play games involving pulling and pushing, hugging and squeezing. (See Development of the Use of the Hands).

(*p*) As everything the child does is helping him to develop his body image, all the other sections in this booklet including Motor Development and its additional hints on Mobility, Use of Hands, Development of Residual Vision, Development of Language and Auditory Training should provide pointers for working with the child.

"Only through a reliable and consistent body image can the child develop a reliable and consistent point of origin for either perceptions or motor responses. We should offer him motor activities and guide his motor development towards an awareness of his body in space and what it can do" (Kephart).

MOTOR DEVELOPMENT AND MOBILITY

A blind baby is not so stimulated to move as a sighted one. When placed on his tummy, a sighted child will attempt to lift his head and in doing this is rewarded with something interesting to look at. This encourages him to repeat this act of "head-lifting" more frequently, gradually increasing the length of time he can hold this position. This, in turn, helps him to see more things of interest. For the blind child with additional handicaps, it is often an uncomfortable position in which to find himself, when the only rewards are the smell of the carpet

and a sensation of suffocating. Unless an interesting situation is created to tempt the blind child to enjoy this face down position, he may grow to hate lying on his tummy. Consequently neck muscle-tone may not develop sufficiently to enable the child to acquire complete head control at an early stage, and this may result in his failing to go through the stages which ultimately lead to crawling. Thus, though the blind child may appear to be happy and content just to lie on his back, safe in a world where no demands are made upon him, this is not necessarily best for him. At this stage a sighted child would be propped up in his pram, visually and mentally, stimulated by watching his mother's movements, the clothes flapping on the line, the cat sitting on the window-sill and so on.

Some children classed as blind may have a degree of residual vision. If such a child lies down, there is only the ceiling to look towards. That is probably too far away, and holds no particular interest. The baby might possibly discover his hands at this point, and find that he can make visual patterns by moving his fingers in front of his eyes. This is a very normal stage of development, but for the multi-handicapped blind child it can become something to do in a barren world and may sometimes provide an interest which becomes quite overwhelming. This may then develop into a rigid pattern which is difficult to break. (As with Rubella children, hand patterning and flapping may become part of the "safe" introvert world, where no other demands are made on them).

If the baby continues to lie on his back he may not bring both his hands into midline, to hold, to transfer, to take them to his mouth, even if he does have some sight. He is not in a very good position for "scanning" (*i.e.* feeling) with his hands or "seeing" what is around. He will not have the chance to learn to use his eyes and hands together. Sitting is superior to lying, as in that position there is a better possibility of being able to locate sound sources, and so begin to orientate himself in his surroundings, for instance, hear where the traffic or the washing machine noises come from. However, even propping into a sitting position a severely handicapped child with a visual problem, will not of itself motivate him into movement and co-ordination, searching for, grasping and handling "toys" he feels. (He may *hate* touching things). Background music may not stimulate him, but may help him to withdraw more and more into his own safe little world. He has not the experience to interpret other everyday sounds. Bear in mind that normally one "stills" to hear a sound better, rather than move towards it.

It is clear that such a child needs constant, adequate guidance and much patience to help him overcome these problems so that he becomes stimulated to move to explore his environment.

It is a true saying that one cannot walk before one can stand, and it is equally true that one cannot sit unsupported before one has head control, so let us begin at the beginning.

1. HINTS FOR ENCOURAGING DEVELOPMENT OF HEAD CONTROL

(*a*) Sit him in your arms, very well supported, to talk to him, feed him, etc.

(*b*) When he is on his back, tuck a small, firm cushion under his lower neck and shoulders. This helps him to relax his shoulders and bring his arms forward. Interesting things can be hung on a frame in front of him to stimulate any vision he might have.

(*c*) In position as (*b*) flex both his knees on his chest or rest his legs on your shoulders and lean over him. Take his hands separately, then later together and open his fingers so that his palms can feel your face, hair, etc. Talk to him all the time. Encourage his verbalizing by "replying". If you think he is ready for it, offer him something to play with. (See Encouraging Use of Hands).

(*d*) One of the first stages in developing crawling is the ability to lift head and chest off the floor whilst lying on the tummy. Blind children don't get the visual stimulation of raising their heads in this way, so often they just lie uncomfortably, probably objecting, heads down, feeling suffocated by the carpet. To counteract this, (i) lay the child on his tummy across your knee. Talk above his ear and reward any slight head lift with a kiss and praise. (ii) Later lie him over a firm roll (which can be made out of a cot mattress or several rolled towels or a blanket rolled into a pillowcase) under his chest, so that his arms are hanging freely over the roll. Sit in front of him, talk and encourage him verbally to lift his head. (iii) Alternatively, hang interesting shiny or

highly coloured "toys" from a frame in front of him (a broom handle lashed between two chairs is suitable, or a clothes horse, or the frame of a baby-relax chair). If some are strung on elastic they spring up and down when touched, so giving added interest. Totally blind children may enjoy a cluster of bells hung directly above their heads so that as they raise themselves they touch and ring the bells and are rewarded. (iv) If the child shows interest in handling or has some vision, place a particularly interesting and colourful toy on the floor. (v) If he becomes more visually aware and more able to control his head, move a pull-along toy across his line of vision. (vi) Lie on the floor in front of him face to face or cheek to cheek, to talk to him. (vii) Put his hands flat on the floor to feel pressure through his arm muscles. Vary the surface.

2. ENCOURAGING SITTING

When sitting, a child is in a better position to use his hands and with his head up can locate sounds better. If he has residual vision he is more likely to be able to see around.

(*a*) When he is on your lap, sit him up to play with him, talk and sing to him, and dress and feed him. He may begin to realise that, for all activities where he is getting special attention he sits, so one hopes he will build up an association.

(*b*) As soon as he has some degree of head control, prop him up firmly in the corner of a settee, or in his baby relax chair, or when you are close by, place him on the floor with his back against the settee and supported by cushions on either side.

(*c*) Once his back is stronger and head control is established, place him in a chair which supports back and sides, but not head, for short periods, as a variation on other positions. Floor-level wooden triangular chairs support him but allow some floor level play. Later, these chairs can be used in conjunction with a low table (or cardboard box cut away to allow him to put his legs inside and to use the top as a table). However, consult your Physiotherapy Department for advice. Sitting him inside an old car tyre gives him support in the lumbar region and still allows him to play with objects outside the tyre and encourages some degree of balance.

(*d*) To achieve unsupported sitting, a child must be able to use his hands and arms to balance his body sideways, backwards and forwards. Our child may not be aware of his hands, so: (i) Put a firm roll (as described previously, or an inflatable ball, under his chest, so that he is resting on hands and knees. Roll him gently on to his hands and back on to his knees. (ii) Hold him firmly, partially unside-down so that his hands can feel the floor and his arms take a little body weight. (iii) Sit him cross-legged. Let him fall forwards on to his hands with your help. (iv) Gently rock him from side to side on to each hand as he is sitting supported. (See Use of Hands). (v) Encourage cross-legged sitting. This is preferable to a "feet-either side of-bottom position which may increase the danger of dislocated hips.

FURTHER MOTOR DEVELOPMENT

The child may need encouragement to move at all, so:

(*a*) Get accustomed to moving him from room to room as you work.

(*b*) Change his position throughout the day, *i.e.*, on his tummy (perhaps over a roll or wedge or just on the floor), on his back with mobiles strung above him, or propped in a sitting position.

(*c*) Have fun with him, bouncing, swaying, swinging, etc., so that he gets used to body movement. Fathers usually like to "throw" catch and swing their child. Our children sometimes enjoy the rough and tumble activities of other children in the family.

(*d*) Play games with him which involve moving from you to another person, who calls him, then hugs or kisses him when he arrives. You could roll him over with care or walk him, well supported, when he is ready, etc.

(*e*) Show him that by reaching, shuffling and rolling he can get a toy or person. Remember that a blind child does not necessarily crawl before he walks.

(*f*) Make a point of moving him around a room, to show him that things change, different furniture is encountered as you move from place to place. (This is a real learning situation for the child!)

(*g*) When he is ready, encourage him to stand propped between your legs as you sit to play with him, or put his favourite toy on the settee for him to reach.

(*h*) If by now he has some favourite toys, put them where he has to find them and encourage him to do this, even if you have to help him to move. One will move towards a musical box of the kind which has a string and a ring to pull. Another with a scrap of sight will move to get a shiny toy. Another follow a very brightly coloured large ball, another will listen for an electronic bleeping ball and move to find it. No one activity can be guaranteed to get your child on the move.

(*i*) When he is ready, encourage him to stand by furniture to play. If he is too tall, radiators (provided they are not hot) are a useful height; alternatively a strong wooden bar fitted to the wall may be necessary.

(*j*) Get him to move along it a little. He may need the encouragement of a toy or a drink or a sweet or may just have to be shown that to move this way is an enjoyable new experience.

(*k*) Move two pieces of furniture a little way apart so that he gains confidence in moving from one to the other.

(*l*) Develop his ability to pull up and let himself down by playing "Up and Down" games, Ring o' Roses, etc.

(*m*) Let him walk on your feet, well supported.

(*n*) Erect some parallel bars by slotting and tying broom handles very securely into backs of four firm chairs. The child then holds each bar to walk inside the narrow passageway formed.

(*o*) A baby walker with a canvas seat might have some use for a while at this point; to encourage moving around on his feet.

(*p*) An old round coffee table with castors on its legs and a hole cut out of the middle built up to the child's under-arm height with car tyres may also be useful, if you happen to have these materials to hand.

(*q*) Some children benefit from "swimming", and there are some municipal baths which organise "water-baby" sessions. Children experience freedom of movement in a new way. Approved "blow-up aids" to floating may be helpful.

(*r*) When a child can walk with fairly light support, useful aids are:

(1) Reins and harness with bells on. Blind children often take a long time to develop from the stages of supported, to free, walking, and reins help to give the feeling of independence.

(2) A *weighted* push baby-walker, or pram, can also provide an aid at this stage.

(3) A hoop. A child gets inside and holds on to the front whilst an adult holds the outside. One can pretend this is a game of "riding a horse".

(*s*) Don't stop a visually handicapped child from exploring stairs. He will learn best all about stairs if he is allowed, with supervision, to crawl with his whole body outstretched on them. Walking up with a hand held, or holding a rail, comes later. He will probably want to crawl or slide down on his tummy to begin with.

MOBILITY

(*a*) Every opportunity should be given to the visually handicapped child to gain confidence in moving in a variety of ways. Let him climb *over* pouffes, play *in* and *out* of a large cardboard box, or *through* an open-ended one. Have him rolling from one end of a mat to another, or squirming along its edges, or crawling around the edges of a room. Help him to find the ceiling. He may need to be shown the delights of swings, slides, trikes, swinging on a rope or a bar, rolling *down* grassy slopes, paddling, swimming, etc. In time he will jump from a low step if you help him first to give him confidence. Outside, help him to discover low walls to climb over, or puddles in which to splash. Help him find the post box, telephone box, trees and gateways. He should be helped to be aware of different surfaces of tarmac, grass, ground, leaves, twigs, carpet, lino, stone.

(*b*) Play a game in which he has to stretch up high, stretch out wide, make himself small. Encourage him to stretch out on the carpet to see what his toes and finger-tips can

reach, or bend himself over to touch his toes, or pretend to walk like a dog, etc. This will help him to understand his own body space. Give him the right words to describe these movements.

(*c*) Play a game in which you move an arm, a leg, or your body position, and let him look at you or feel you, then have him copy what you have done.

(*d*) When he is ready (and he will not be so until he seems to have shown some preference for one hand) introduce games which help him to *know* his right. For instance, let him wear a big glove (one of Mummy's or Daddy's) on his right hand. Emphasize that this is his right hand, and that the other is his left. This glove might be worn for singing games like "Hokey Cokey").

(*e*) "Simon Says" is a game which can be adapted for blind children. Simon gives instructions such as "Touch your toes", "Pat your knees", "Put your hand on your head", "Lift your leg", etc. If the child is wearing a glove on his right hand, you can make the instructions more specific, *e.g.* "Put your right hand on your elbow, head, knee". Later add a progression "on your left foot, elbow, knee".

(*f*) It is difficult for a blind child to get an idea of distance, and it is only by experience of movement that he will learn. There will come a time you can help the child to find distances from, *e.g.* wall to wall, in different ways—by slithering on his tummy, rolling, crawling, striding, walking toe to toe, or pushing his own wheelchair if he cannot walk. Try to combine auditory training into this programme, so that the child begins to form some idea from the sound of a voice (for instance) how far he has to go to reach it.

(*g*) In general there are all sorts of singing games which are enjoyable, and which help a child build up his body awareness with rhythm, words and movements.

Encourage the child to play at:

(*h*) Walking on, say, grass verges—one foot on the path, the other on the grass. Vary the game by jumping from grass to path and back again. Additionally, great fun can be had (in wellington boots!) walking in and out of puddles, round the edge, or jumping in them. Other interesting surfaces can be found to play this game.

(*i*) Play at walking backwards.

(*j*) Scatter some cushions, sheets of paper, around the room, with small gaps between. The child must climb, or step from one to the other, without touching the floor. Gaps can be widened for added interest as proficiency develops.

(*k*) Get him to climb from the inside of one rubber tyre to another and another.

(*l*) Find something to make strong, steady "stepping stones" for the child to climb on, or walk from one to the other. (Later, vary the heights). Later still, he has to collect toys from the ground as he walks without falling off the "stones" to deliver these into a basket or other receptacle.

(*m*) Let the child have fun with a hoop, wriggling through it in different ways.

(*n*) Have him crawl or walk round the end of a large rubber tyre.

(*o*) On outings, find fallen tree trunks over which the child can climb, pull himself, crawl or walk.

(*p*) Get the child to lie full length on a form and pull himself along to the end. Later he should be encouraged to crawl along it, then walk with the hand held, and finally, on his own.

(*q*) Introduce an obstacle track of furniture, or objects which he has to negotiate, by squirming through and climbing under, over, around, between, up, down, in, out, etc.

(*r*) A hanging rope, or rope ladder, or scrambling net, help a child to appreciate his own body weight as well.

(*s*) Get him to bounce on a springy mattress, or trampoline, so long as you are within reach!

(*t*) Activities on a see-saw, or balancing board, would also be helpful.

(*u*) Walking on stilts, strong cocoa tins on string, and jumping on pogo sticks are all usually great fun, and help the child to get good balance.

(*v*) Because of their difficulty in imitation, as well as a possible poor body image, there is a danger that blind children may grow up with poor posture and gait. They need to

know what good posture is, and may need to be reminded several times to hold up their heads.

In all these activities, the child will be learning the language of space and movement—in, on, beside, behind, up, down, along, jump, crawl, roll, swing, over, under, and so on. He will be gathering information about his own body space around him, how he is in relation to objects around, how they are in relation to each other. One hopes he is also acquiring information about environmental sounds and smells. (See relevant sections).

Done in the right way, he should have built up some knowledge of the dangers of heights, fires, sharp obstacles. Street dangers may be harder to teach, but are essential.

All this activity should lead the child into a growing confidence and freedom to achieve more independent mobility.

SENSE OF SMELL

Some very seriously multi-handicapped, non-communicating blind children have an uncanny way of recognising familiar people from a distance. Sometimes the only explanation is that they must be smelling the person. Sometimes blind children go up and smell a person's wrists on greeting, or smell themselves after a wash.

There are everyday occurrances when recognition of particular smells might be useful if one cannot see, *e.g.* noticing when one is passing a baker's, or approaching a chip shop, differentiating between tubes of mustard, toothpaste, shampoo and shaving cream. It seems that, somehow, we need to help a child develop its sense of smell in as many ways as possible. One feels that, at the basic stage, this should be done in the course of normal routine, where smells are apparent. We should not forget to draw attention to toiletting, washing, and food smells, or those to be noticed when the grass is being mown, or rain is falling, tarmac is being laid, or while passing by flower beds. There may be a place later on for "smelly" games, *e.g.* guessing various foodstuffs through taste and smell, or having a "smell box" of things with a distinctive smell.

USE OF HANDS

A. ENCOURAGING THE USE OF HANDS

Often, multi-handicapped blind children either don't handle things or strongly object to doing so. It seems that the reason for this may be one of several.

(1) Some appear to be hardly aware they have hands and may need help to realise this.

(2) Some have such physical limitations that they have great difficulty in manipulation. Their hands may be tightly clenched with thumbs in, and they have difficulty in bringing their hands together or raising their arms.

(3) Premature or sickly babies who have spent their first months in hospital, and consequently deprived of early bonding with their mothers, have suffered a lack of physical contact generally.

(4) Blind children with many handicaps must live in a confused world, and new things and activities probably pose a threat to their security.

Ideas

(*a*) Play with his hands, caressing and blowing on the palms, tickling them, brushing over them with different materials, putting them on your cheeks.

(*b*) Shake his arms from the elbows, stroke his elbows, forearms and back of his hands. This sometimes helps to release tension in tightly clenched fists. (See a Physiotherapist for detailed instructions).

(*c*) Lie the child with his head on a pillow so that his shoulders are brought forward and his arms and hands are more relaxed. Try to bring his hands gently together on your cheeks, raise his arms a little, massage his hands and try to make them as supple and relaxed as possible.

(*d*) Attach small bells around his wrists so that as he moves his hands involuntarily the bells tinkle.

(*e*) Push a quoit or a Slinky or bracelet as far as his elbow. One hopes this will provoke a response of some sort to get it off by shaking or using the other hand or mouth. If he cries, gently show him how to release it with the other hand.

(*f*) Put a rattle or crinkly paper, etc., into his hand and close his fingers around it.

(*g*) Provide him with materials which have bright colour and shine in case he has a minute scrap of vision.

(*h*) Encourage him to dabble his hands in a shallow pan or biscuit tin containing some rice (coloured) or split peas, lentils, macaroni, pasta (be watchful!), bubbly water, sand, sawdust, polystyrene chips (used in window-dressing). If his hands and arms are stiff, sift things over his hands.

N.B.—Some children appear to hate handling and will withdraw their hands, making strong objection to anything being put into them. It is usually the same children who hate change, as if they are afraid of new things. Much of what has been said above may be relevant, but be more cautious in encouraging their interest in objects. For example:

(*a*) Introduce only one new object at a time and use discrimination in deciding what it will be. He may still object strongly but if you persist firmly but gently, all new things eventually become part of the everyday scene.

(*b*) Give him more control over the situation. Draw up to a table and sit him on your lap. Put an object on the table, then help him to reach towards it, saying what you are both doing.

B. ENCOURAGING PURPOSEFUL USE OF HANDS

(*a*) Try to introduce the child to things which have a variety of appeal, *e.g.* an interesting shape, a reflecting or colourful surface, interesting texture, something with holes in, things with different types of sound potential when shaken, banged, tapped, scratched, rubbed, etc. Particularly successful toys and other objects have been in our experience crinkly paper (such as found in chocolate boxes), a Slinky (Merit), a Slinky in a tin, old cardboard boxes, tins, *e.g.* (golden syrup, drinking chocolate, talcum powder, biscuit tins of varying shapes and sizes), hair rollers strung on a ribbon, and a series of Woolworths transparent bracelets strung on to a round of elastic. An interesting toy can be made from a cotton reel, round elastoplast tin, an inside of a toilet roll, an inside of Selotape and carpet tape roll, a crochet reel, a gamester ball, a bell, a length of bamboo, etc., strung on plastic-covered garden wire and looped into a large ring. This provides an interesting variety of sounds, movements, textures, shapes and sizes. An added bonus is that it will cost you almost nothing, being made from junk material.

(*b*) One can also use bright, shiny rattles, squeakers, etc., available commercially.

(*c*) Tough, "feely" mobiles, strung on elastic or wide tape and anchored firmly from above, can also be made from a variety of junk materials, dolly pegs, bean bags, lavender bags, etc. Fairly immobile children may get pleasure from handling them whilst they sit beneath.

(*d*) One needs to introduce things which have a perfume, *e.g.* old talc tins, old Jiffy lemons, a lavender bag.

This sort of choice of "toy" will sometimes motivate those children who may otherwise be reluctant to explore objects with their hands, so that they begin to feel, to shake, to bang, to mouth, to turn over, to put hands or fingers through, to poke, to bite, to smell, to drop, to listen to and to seek and scan for other objects in their environment.

Where a child is still apathetic about using his hands, it may be necessary to show him, *e.g.*, what a variety of sounds he can make by scratching, shaking, tapping, banging and rubbing a toy, or how it feels or sounds when he turns it upside down or sideways, or feels it in different positions on his lips or any part of his body, by transferring, by putting to his feet. One may need to manipulate his hands into these actions. A multi-handicapped blind child without this kind of stimulation may play very unimaginatively and repetitively or even not handle at all. Remember that much of the key to the world about him has to lie in his hands and in his hearing—and this does not just happen. It only comes with training and management.

A sighted baby is stimulated to move by what he sees and wants. A blind baby must be prompted to reach beyond himself, and thus be motivated to move. If he doesn't move he will not actively learn about new things in his immediate environment or beyond it. One must remember that his understanding of language, too, will be restricted to his experience.

N.B.—If a child has some vision, look at notes on Visual Stimulation.

C. DROPPING (9 months)

When the blind child reaches the stage when he drops his toys, he is not able to see what has happened to them, and they may well have disappeared completely as far as he is concerned. When he is either well propped up in a sitting position, or preferably when he has achieved firmer sitting balance, gently put his hand on the dropped toy, or return it to him.

D. DEVELOPING TACTILE SCANNING

(*a*) The blind child needs to learn to be curious about his surroundings, so when he has achieved complete head control, and when he is propped in a sitting position, either on the floor or in a triangular seat or baby's chair with tray, show him how to reach forward to find objects. As his sitting becomes firmly established, stimulate him to feel all around to see what lies within his immediate vicinity.

(*b*) The baby play of dropping, scanning and retrieving will lead on, when he is much older, to the more sophisticated technique of (*a*) listening to the direction where the object has dropped, and (*b*) moving finger-tips outwards from the body in small circles on the surface, in the direction of that sound until location of the object is achieved.

E. THROWING

At around a development age of 12 months, a baby throws toys deliberately. Some multi-handicapped children become obsessed with this activity, possibly because:

(*a*) The toy makes a noise as it drops, or

(*b*) People either laugh or later shout at them for doing it. This reinforces the action by giving added sound reward and personal attention. The children continue to throw until the habit becomes firmly established, thus making it difficult for the child to progress beyond this stage. One has to substitute another activity for which he gets attention, by praise or other reward. The most effective way seems to be (whilst trying to play down angry reactions to throwing) to anticipate at every opportunity and attempt to intercept a throw by saying "Give it to me", and make sure that the object does get into your hand from his, and then quickly say "Good boy". Alternatively, have a large tin beside him which makes a nice resounding "ping" as he drops a toy into it. Try also to give him fresh satisfaction by encouraging him on to the next stage, which involves rummaging in boxes, tins, bags and other containers to see what they contain.

Give him boxes, tins, old handbags, a laundry basket, plastic containers with which to play. Add to this lots of odds and ends which can be put into them, *e.g.* bricks, hair-rollers, other tins and boxes, things to squeak, and all kinds of junky materials safe to play with and which you would normally throw away—saucepans, wooden spoons, lids, old large cardboard boxes, scarves in which to wrap things, old hats, etc., make good toys at this stage. Normal sighted children go through this stage naturally. We may have to direct the multi-handicapped blind child rather more, *e.g.*:

(*a*) Shake up an open tin with a wooden brick in and then coax him to put in a hand, to find the brick.

(*b*) Shake a Slinky in a tin and direct his hands into the tin.

(*c*) Lentils, macaroni, rice, etc., in different shaped containers tempt a child to shake about to reach in and pick up a handful, to sprinkle elsewhere, even to smell, and taste (be watchful!), tip over himself and possibly step on with bare feet. (Make sure he does not put them in his ear or nose!)

(*d*) Old hats, boxes, tins, baskets, etc., can be put on his head, over his hands and arms, on his feet as also can bracelets and chunky necklaces.

(*e*) Delving into different varieties of bags (not Mummy's handbag!).

(*f*) Large cardboard boxes, laundry baskets are useful to climb in and out of. (See notes in Language, also Motor Development Sections).

(*g*) Encourage experimenting with all previous containers and materials, putting small objects into large ones, shaking about, trying in other containers, etc.

(*h*) The child should be moving about the floor more now and beginning to be interested in cupboards and drawers. Try to leave a cupboard or a drawer or both that you do not mind him exploring. All children go through a stage of tremendous activity pulling out, *e.g.* pans and tins from the kitchen cupboards, etc.

(*i*) A first posting box might be a transparent plastic sweet jar, obtainable free from your local sweet shop, and a ball, or brick, or lavatory chain, clothes peg, fir cones, etc. Once your child has the idea of posting, he will fill it himself, because one hopes by this time he will be finding his way about the room, or even further afield, into passage and kitchen, and will find things on the way. (The jar is especially useful when a child has a small degree of sight).

F. LIDS

Start introducing the idea of lids:

(*a*) Let him climb into a very large old case and pull the lid down (remove locks and be on hand in case he is frightened by seeming to be shut in).

(*b*) If you provide him with a box with a flap lid, perhaps he will experiment with the lid, opening and closing, listening as it flaps back, or maybe delve inside, or put something inside and close the flap. The conventional type of music/jewellery box has a hinged lid, which is more inviting to lift, especially if a child is not well motivated otherwise.

(*c*) Cardboard boxes which have flap tops or drawers (*i.e.* household size matchboxes) or tins with easily worked hinged lids are useful learning tools, as are saucepans with lids to remove and replace. One type of baby food has an easily removed plastic lid.

In all his experimenting with these containers, the child will have begun to realise that some things don't fit in. They are "too big". This adds a new dimension to his spatial concept as well as his language.

(*d*) For further development, try putting a hole or a slit in the lids and boxes so that he has to control his hand movements to a more specific degree in order to put things in. He will also discover some things will not fit and will probably get upset about it, but encourage him to try other things.

(*e*) We have found a "Hammerball" set very popular when the child is ready to learn to put round balls into the same size of round holes. He will probably enjoy putting his fingers into the holes of the cones from a Pedigree Pop-up Cone Tree and help you to put the pieces on. He may enjoy putting large round pegs into large round holes. Many children find a Galt Pop-up Men toy enjoyable at this stage, also a Baby Drum Drop (Playskool).

Other "toys" provide interest and practice of a similar kind, *e.g.* a wine or sherry bottle cork pushed into a bobbin (taken from a roll of string), to pull apart and put together again. Mill bobbins can be built into a long or tall tower or used in conjunction with a feather duster or colourful dish mop to push through. A mill bobbin and a dowel-rod puppet creates fun as he can be made to appear and disappear into the bobbin again. A pop-gun needs to be reloaded as well as released.

G. DEVELOPING HAND-MUSCLE TONE AND FINE FINGER USE

"Flabby" (hypotonic) hands are a common feature amongst young blind children, whether additionally handicapped or not. Muscle tone, as well as fine finger movements, needs to be developed if a child's hands are to become useful tools in learning everyday living skills. The following types of activity should help:

(1) **Learning to Separate Fingers**

(i) If he has some sight, attract his attention to his hands and fingers by drawing

faces on his palms and the backs of his hands. He will have to exercise his wrists to turn his hands from back to front. Finger puppets are usually enjoyed as well.

(ii) Stick stamps of adhesive paper and cellotape on to the backs and palms of his hands, or his fingers, etc.

(iii) Place coloured thimbles on each of his finger tips. Play at drumming or scratching them individually on a hard surface. He may find out that he can click them together.

(iv) Let him play with string, winding it loosely round his fingers and thumbs.

Useful materials for developing different actions are:

(2) **Squeezing**
- (*a*) Squeakers.
- (*b*) Empty plastic "Squeezy" bottles, from which he can expel air and direct it on to his cheek or palm of his hand. Used in the bath, he can squeeze out water.
- (*c*) Sponges during water play.
- (*d*) A tin "Frog" clicker.
- (*e*) Finger castanets.
- (*f*) Plastic fruit storers or egg cartons produce interesting sounds when squeezed.
- (*g*) Flour, oil and water dough.
- (*h*) "Blu-Tak"—being very elastic is super for pulling and squeezing.

(3) **Pulling**
- (*a*) A pop gun.
- (*b*) A "Zany Janey" talking doll.
- (*c*) A musical box with a string to pull.
- (*d*) Blu-Tak or Elastic.
- (*e*) Pieces of Velcro.
- (*f*) An acrobat puppet.

(4) **Pushing**
- (*a*) Drawers or doors to close.
- (*b*) A humming top.
- (*c*) A pop gun.
- (*d*) A Hammerball set.
- (*e*) A Pedigree "Pop-up Cone Tree".
- (*f*) A Musical Reggie (Sankyo).
- (*g*) Pianos and organs.
- (*h*) A doorbell.
- (*i*) A Galt "Pop-up".
- (*j*) An electric switch.
- (*k*) A switch-on torch.
- (*l*) A truck to push about.

All through these activities we try to get the children to use their two hands together as we do later when we introduce "educational" toys and tasks, *e.g.* rings on sticks, formboard, painting, crayonning, modelling. This co-ordination will lead to more skill in self-care activities such as use of feeding tools, dressing and undressing, fastening buttons, buckles, and ultimately use of equipment—radios, cassette recorders, telephones, etc.

VISUAL STIMULATION

Experience has shown that where there are indications of visual awareness in a child, it is *sometimes* possible to develop visual ability and interpretation. However, this will *not* improve his ability to see ("Seeing" as defined by Dr. Mary Sheridan).

Let us first look at the Development of Visual Competence in normal sighted babies, as described by Dr. Mary Sheridan.

Seeing

This is the reception of mobile and static patterns of light, shade and hue by the eye, and their transmission to the occipital region of the central nervous system. It depends upon structural and functional adequacy of the eye and its connections.

Looking

This is paying attention to what is seen with the object of interpreting its meaning. It depends upon capacity and opportunity to benefit from experience. Visual function can be voluntarily suspended by closing the eyes.

Neonate (newborn)

Has not seen before birth, but rapidly adapts.
Pupils react to light.
Lids close against intense light.
"Doll's eye" reflex present.
Eyes and head turn to diffuse light.
Limited powers of accommodation produce relatively fixed focal length of 8 to 12 inches until four to six weeks.
Follows dangling ball briefly at focal distance.
Consistent watching of mother's face when feeding from about 3 weeks.
Eyes often "corner" reflexly in direction of sound-source, therefore TEST VISION FIRST with silent object.

1-3 Months

Regards nearby human face with intense pre-occupation.
Scans surroundings when held upright and no face in view.
Follows slowly moving dangling ball at 6 to 10 inches from face attentively.
Defensive blink present from about 4 to 6 weeks.
Converges eyes for finger-play from 3 months.

4-6 Months

Visually very alert for near and far.
Smooth following eye movements for dangling ball in all directions.
Regards small pellet on table-top and approaches with hand.
Reaches for toys (from 4½ months), grasps firmly and regards closely.
Peripheral vision easily tested.
Watches objects moving or falling within visual fields. Both eyes working as a team.
Squint now definitely abnormal, however slight and transient.

7-12 Months

Visual competence for near and far rapidly improving.
Picks up pellets between finger and thumb with increasing skill.
Follows dangling ball in all directions.
Anticipates rotating ball (from 9 to 10 months).
Looks for fallen toys and toys hidden while watching (from 9 to 10 months).
Tests with rolling balls (usually) and mounted balls (probably) applicable down to $^3/_{16}$ or $^1/_8$ inch at 10 feet.
Brisk response to peripheral vision test.

1-2 Years

Probably has full adult visual acuity for rolling and mounted balls, but difficult to hold attention for prolonged tests owing to increasing visual sophistication and need for meaningful reinforcements.
Picks up threads and small pellets.

Let us use these normal developmental stages to suggest areas in which we might start to encourage use of "sight". Some of our "blind" children are so grossly additionally handicapped physically and mentally that a scrap of sight might be their only asset. As teachers, we should realise the importance of encouraging any such positive sign, however slight.

TRAINING VISUAL EFFICIENCY

The following are some suggestions which are useful in developing all aspects of a child's visual efficiency.

1. VISUAL ATTENTION

(*a*) Place a dull light, perhaps a coloured one, beside the child whilst he is lying or sitting.

(*b*) Put very colourful or shiny objects to hang above him as he lies in his cot. A wide elastic strung across the top, hung with items such as a couple of shiny dessert spoons on a ribbon; shatterproof Christmas decorations; a Kiddiecraft "Wobble-Globe" strung upside down; some large glass toy beads strung on a ribbon; a child's toy mirror; a very brightly coloured rattle; some silver balls (as sold in Baby Shops) strung on a ribbon; coloured transparent plastic bracelets (such as those from Woolworths) strung on a ribbon.

2. FIXATION

(*a*) Fix a shiny windmill close by him in a place where it will spin easily.

(*b*) Put a large orange or red plastic blow-up toy beside him as he lies or sits, or a "Kelly" man.

(*c*) Place an "optic" lamp close by him, or an "executive desk" toy with shiny balls bouncing on the end of springy wires.

(*d*) Play with a colour torch, holding it to one side or another, or forwards, to see if he can "fix" on it.

(*e*) Any other sort of "hypnotic" toy, which fixes a child's visual attention.

(*f*) Encourage the child to look at mother's face:

(1) Mother holds the child above her head, and moves him in to kiss his face.

(2) Mother faces him and moves her head towards him whilst cooing.

(3) Mother wears a colourful hat.

(4) Mother's eyes and mouth emphasised by make-up may help.

It is usually very difficult to ascertain what a multi-handicapped child is able to see, and it is only by observing him over a long period of time and in numerous situations that one can begin to understand what he sees and what are his limitations. It is a good idea to record such observations.

Marvin Efron's technique for assessing a Rubella child's vision is as follows:

One person holds one penlight directly in front of the child's eyes, approximately 12-18 inches away. Another penlight is held by someone else in various other positions. Starting on the outside of the vision field, the second torch is moved around in a clockwise direction. As the second light is moved to each new position, the first light is switched off and the second switched on. The child should make an immediate and accurate shift to the second light. The child's successes are recorded by a cross on the chart.

3. TRACKING

(*a*) Use a colour torch. Get his attention with it by putting it near to his eyes, then move away a little, still keeping his visual attention, then move it slowly from one side to another, then up and down and diagonally. As soon as you lose his attention, move it closer to him once more. You will find out if his vision is stronger at one side than the other. Repeat at a further distance if possible.
Move the light in a vertical circle at varying distances.

(*b*) Hold a brightly coloured (red, orange or purple) toy, and move it across his line of vision horizontally, vertically, or in a circle. If he is at the stage of reaching out, then put it within his arm's length, so that he can touch or grasp it, so that his visual impressions have a more concrete meaning. Whilst he is thus engrossed, occasionally produce another shiny toy or torch to the side to try to distract his attention.

(*c*) Mother might talk to the child as she moves her face near to the child during caring routines. Talking to the child as she moves about the room at a greater distance will give him a verbal as well as a visual clue.

(*d*) Fix a brightly coloured object on to string, and pull it along the floor in front of the child's line of vision. *Some* pulling toys are also suitable. It doesn't matter at this stage if it makes a noise or not; in fact, an interesting sound sometimes encourages visual interest and attention.

(*e*) Dangle an attractive object on a string from above the child's eye level, and move it slowly about 12-18 inches away.

(*f*) Roll a large highly coloured patterned ball near him. If he has some mobility, try to encourage his participation. (This can gradually become more and more sophisticated throughout his life, until it develops into a real ball game, involving rolling, kicking, throwing, catching, and so on).
Try a variety of sizes and colours of ball, indoors and out.

(*g*) Any toys which involve tracking, rolling marbles, balls, etc., *e.g.* bagatelle, marble helter-skelter, etc.

(*h*) Play at blowing bubbles, watching each as it floats.

(*i*) Encourage him to watch clockwork toys moving at different speeds, and to focus his attention on his elder brother's car set, or car racing track.

4. CONVERGENCE TRAINING

Marvin Efron, in his booklet (see bibliography), outlines his convergence training technique, and suggests working in a darkened room without the distraction of overhead lights. He uses a torch or bright object, and moves it very slowly towards the child, to within four inches of the bridge of his nose, then away. The mother or teacher notes at what point the child is no longer following. (A fully-sighted child normally converges eyes for finger play at three months and, at six months, both eyes are working as a team, and a squint is abnormal. (See Sheridan).

5. ACCOMMODATION

This is the skill of focusing on objects as they change distance from one's eyes. Throughout, we should be providing opportunities for the child to become as visually competent in this as possible. A variety of visual stimuli, as already described, will help to develop this competence. However, there is a danger that, with an immobile child, one might, for example, always put his toys at the same distance from him. If you scatter them around a little, this would necessitate a greater effort in focusing on favourite ones, whether they be near or far. Everyday living provides numerous situations where he can be called upon to develop his focusing powers more efficiently.

6. EYE CONTACT

(1) With a person

If possible one should try to establish eye contact with the child. Some suggestions for developing this are:

(*a*) Wear some spectacles for a while.

(*b*) Put on a colourful hat.

(*c*) Cover your nose with a matchbox.

(*d*) Have fun with a disguise kit of the kind one might buy in Woolworths.

These are done in a playful situation. A more formal approach may be to sit opposite the child and hold something the child likes at the bridge of one's nose. If he looks at one's eyes he is given the object as a reward. It should be remembered that some children see best at an angle, and may have to tilt their head to look at one's eyes. Some may have useful vision in one eye only.

(2) With an object

This skill is essential to developing hand/eye co-ordination, and all areas of visual perception. In all daily activities, if it is thought a child has some sight, objects should be presented within his area of vision for him to pay attention to visually, and to reach to hold. Objects should not just be put into his hand. Sometimes people do all the "looking" for these children. They put drinks, toys, clothing, into his hands, lead him about by the hand, and find things in a room for him. Consequently, he becomes increasingly more dependent visually and physically upon the adults around him, and his own visual efficiency is not improved.

7. HAND/EYE CO-ORDINATION

From about 4½ months, a fully-sighted child will begin to reach out to grasp something he sees, and by 12 months, will be picking up sweets, crumbs, and string, with a neat pincer grasp between thumb and tip of index finger (Sheridan).

(*a*) Try to hold toys in the child's line of vision, and encourage him to reach out to hold them. Make sure the object offered is easy to hold, and is of sufficient size to fit comfortably into his hand.
(*b*) Provide him with plenty of visually interesting materials to reach for and handle.
(*c*) As he grows more competent, provide him with opportunity to exercise finer use of vision. For instance, can he see and pick up a pretty coloured ball of, say, 1½ inches diameter, a cotton reel, a Smartie, hundreds and thousands, individually?
(*d*) Request the child to put something into your hand.
(*e*) Play games which will encourage him to seek for and pick up an object he has seen being half-concealed under a blanket.
(*f*) Using brightly coloured objects which are partly visible above the top of a container, tempt him to look into the jar or tin, and persuade him to delve inside.
(*g*) Activities involving taking out pegs from a Galt Pop-up, or peg men from a wooden lorry. Taking rings off a stick.
(*h*) Taking brightly coloured articles out of a transparent plastic sweet jar.
(*i*) Taking saucepans and tins from mother's cupboard.
(*j*) Putting objects into cups, saucepans, etc.
(*k*) Putting one container into another.
(*l*) Taking off pull-off lids from saucepans, etc. Have nice bright knobs to see and handle.
(*m*) Taking clothes pegs off the side of a saucepan.
(*n*) Putting round easy-fitting lids on.
(*o*) Putting a ball into a round hole of the same size, *e.g.* Hammerball Set.
(*p*) Putting large round pegs into holes, *e.g.* Pegmen, Galt Pop-up.
(*q*) Putting rings on to a stick, *e.g.* Pop-up Cone Tree; plenty available with varying degree of difficulty.
(*r*) Catching a large ball in both hands.
(*s*) Learning to scoop with a spoon, and to spear his dinner with a fork.

The list is endless and, with a little imagination, one can initiate many more ways for helping him to achieve a progressively finer degree of hand/eye co-ordination, which can be developed alongside maturing manipulative skills.

8. SCANNING

When a fuse blows at home, we go to the places where we think we can find candles and matches. We have to search or scan tactually. We may not find them immediately, so we feel elsewhere. Our visually-handicapped children, with some residual vision, may have a similar problem in setting their eyes immediately on the object sought. They may give up, or resort to groping, because they have not developed the skill of scanning efficiently around them. They will need to be taught and encouraged by playing enjoyable games:

(*a*) A sort of "Hunt the Thimble" game, but using a fairly large familiar object. Gradually smaller and smaller items can be substituted as the child becomes more proficient. Introduce the game by putting objects at floor level, but complicate it later by placing them on different levels. Give verbal encouragement, such as "You are very close", "It's behind you", etc. Change roles with the child, so that he "hides" and you find.
(*b*) Encourage him to seek for things which have dropped.
(*c*) In the everyday routine, encourage him to look for his own things, and to search for his toys to put away.

9. EYE/FOOT, EYE/BODY

We often find that visually-handicapped children, whom we suspect have a reasonable visual acuity and no field defect, nevertheless trip over things on the floor, or on steps, or

bump into objects. It may be that they need help to develop eye/foot and eye/body co-ordination, but all their experiences of movement and spatial awareness should help them to build up the right sort of information. (See chapter on Movement and Mobility). Many ideas for activities are included in the works of Marianne Frostig and also in books by Chaney and Kephart, and A. E. Tansley.

AUDITORY TRAINING

1. INTERPRETATION OF SOUNDS

We need to help our children to be able to interpret the sounds in their everyday surroundings. So often multi-handicapped blind children react with distress to unexpected sounds or sounds of a certain pitch. We want them to learn to *make use* of environmental noises to enrich their lives.

It is important to remember that continuous background noises such as radio, tape-recorder, television and record-player hinder the child's growing ability to hear, locate, interpret and discriminate everyday sounds. It will be essential for him to be able to do this as he develops physically and intellectually. The child's first experiences of sound discrimination will probably be his reaction to mother's voice, if she talks to him as she attends to his basic needs of feeding, changing, cuddling and so on, or to voices of his family. Then he may react to sounds of meal preparation or caring routines.

As he develops, a blind child has no opportunity to observe how sounds are produced. Nevertheless, he must be given chances to experience what is going on. Throughout the day he should be in a position where he can hear his mother going about her routine household chores and wherever possible hear her verbalising about her actions.

Let us stop to consider the sounds involved in a feeding routine. Dish chinking, tap running, gas or electric stove switched on, pan clanging, mother's footsteps, drawers or cupboards opening, cutlery jangling, pouring of liquids, stirring, "glugging" of liquid in a bottle and the running of a tap. If the child lies or sits in the kitchen and mother talks as she moves and acts, she is giving him a chance to associate with sounds and events. We are not suggesting that he will actually understand the words at this point.

In the same way one might stop to consider the richness and variety of sounds associated with bathing or getting ready to go out, getting ready for bed, changing and so on. At this stage all these routines should be considered educational ones for many reasons, one of which would certainly be a growing ability to interpret sounds.

This approach should be continued throughout the child's life. As he grows beyond the baby stage, he should be helped to build up a "sound" vocabulary. Comments might be made as *e.g.* a car stopping outside, the sound of steps on the path or stairs, a key turning, a door opening and Daddy's voice is heard.

Continue to build on this by helping his awareness of rain falling, wind blowing, feet and toes splashing in puddles, rain running down drainpipes, birds chirping, dogs barking, a car moving off, a car braking, an ambulance siren, an aeroplane or helicopter overhead, the telephone or doorbell ringing, the toilet flushing; sounds of different surfaces, leaves, grass, pebbles, tarmac, flagstones, sand, etc. The list is endless.

An intelligent blind child at 4 + was observed rummaging through some toys. Amongst them were two identical cartons, one containing sugar, one salt. He shook and enjoyed the sugar-filled carton, but when he picked up that filled with salt, he became quite distressed and rejected it with a violent throw. This was returned to the box several times and each time he handled it, his reaction was the same. This shows that extremely fine sound discriminations are able to be made by a small child. How useful this kind of ability might be in reading (phonics) and mobility (self-preservation). All children should have the opportunity to experiment with a variety of materials to discover sound potential, *e.g.*

(*a*) Sand, water, small pieces of wood, small metallic objects, buttons, bottle tops, chains, sugar, salt, peas, lentils, rice, coconut, coffee; polystyrene chips. These substances can be sifted, put into tins, jars and other containers to be shaken or rolled to compare sounds.

(*b*) Pieces of, or objects in, metal, wood, plastic, cardboard, sandpaper, paper, rubber, felt, hose-pipe—used with actions to shake, bang, tap, scratch, rub, blow, press,

tear, roll, drop or slide. These can also be experimented with together to produce more sounds.

(*c*) Different kinds of brushes will produce a fresh variety of sound, if used in conjunction with the above or with various fabrics, corduroy, velvet, hessian, tweed, etc.

(*d*) Drop buttons on to a drum: they vibrate nicely.

(*e*) Help the children to become aware of their own body sounds, *i.e.* slapping in different parts of the body, blowing, stamping, clapping, blowing raspberries, knocking knees, kissing, burping, blowing nose, sneezing, "plopping" cheeks, brushing hair and teeth, tapping teeth, lip play, rubbing hands, snapping fingers, humming, Indian call sounds, sniffing, gnashing and grinding teeth, squeaking feet, heavy breathing, panting, whistling.

Draw attention to these as he performs them by imitating and giving the sounds names. Familiarity with environmental sounds lessens fear. Encourage him to explore a room with the express intention of discovering sound potential in furniture and other objects, by tapping, banging, scratching, rubbing, pulling, sliding, etc. Most people are aware that when they wake in the night and hear sounds which they cannot identify, they become anxious, perhaps fearful. Maybe the children we know, with their meagre knowledge of sounds, experience the same apprehension and fear before they learn to recognise and differentiate them.

Where a child cannot be mobile of his own accord, make sure he is put in a variety of different positions in the room, so that he can explore with his hands wherever he is. Also give all children the opportunity to find sound potential in everyday materials in various parts of a building, *i.e.* a small dark hallway, a lino-tiled kitchen, a carpetted lounge, outside in the garden, in an echoing entry, or by listening to the passing traffic from an upstairs window.

2. RHYTHM

Rhythmic patterns are inherent in music, speech and movement, and it is important to draw a child's attention to them. Actually, a number of these children have an innate rhythmic interest which can be channelled advantageously.

(*a*) Sing the child's name on two or more notes.

(*b*) Clap in rhythm to his name and the names of other children in the family or group.

(*c*) Sing everyday commands or questions.

(*d*) Move rhythmically to music by clapping, tapping, stamping, etc.

(*e*) Copy rhythm patterns—the adult does this alternately with the child—one beat first, then two, gradually devising more complicated rhythms.

(*f*) Tap out rhythms of names or words.

(*g*) Find "their sound" on a piano. Allow the child to find it later.

3. ORIENTATION

The ability to locate the source of a sound and to orientate oneself in relation to it, from the viewpoint of direction, distance and speed, is important in progressing towards independent mobility and self-preservation. Games to train a child to do this:

(*a*) While he is sitting have him reaching out to the sound of a musical box, rattle, squeaker, etc., to develop hand/ear co-ordination.

(*b*) When he is mobile, call him from different parts of a room to "Come".

(*c*) Roll an Electronic Bleeping Ball for him to follow. Develop a game of playing with the ball, patting it along the floor or hiding it.

(*d*) Sound a "Tinkly" ball or tambourine from a short distance and expect him to come to find you.

(*e*) Call from different rooms in the house, upstairs, downstairs, etc., also outside.

(*f*) Locate the sound of a ticking clock.

(*g*) Construct a simple square pen from the sides of four large boxes. The child can sit inside to drop or throw a ping-pong ball, listen to it bouncing, then try to retrieve it.

LANGUAGE AND SPEECH

General observations regarding spoken language are that:

(*a*) Sighted children can pick up some of it incidentally, just by looking and listening. The very fact of a child looking at someone or pointing to something encourages someone to talk to him, or name the object. A blind child may hear, but does not necessarily know what is being talked about. Words or sounds may have little, or distorted, meaning to him. Therefore, it is important that speech should be appropriate to actions which are happening; and opportunity to handle or experience should accompany the naming and doing. From the first it is helpful if mother talks relevantly as she washes, changes, dresses and feeds the child. When a child is unresponsive this is hard to remember to do, and may appear to sound odd. It is also helpful to encourage other people to talk to the child, not just ignore him or talk about him. One cannot foresee how much speech understanding and expression a child will acquire. That will depend on his general ability among other things. It is certain that if and when it comes, it will appear in understanding first. Expressive speech comes later.

(*b*) We cannot teach a child to speak. That has to come from him. However, we can set the stage, by helping him to be interested in voiced sounds by having fun with sounds, rhythms, etc., with the sort of suggestions offered at the end of this chapter, and we can encourage his own vocalisations and early speech by the delight in our voices as we vocalise or speak back to him.

The sort of understanding needed for speech or non-speech communication will not grow in the child until his world begins to make some sense to him, and an "inner" language develops. It seems that some of our children may suffer a breakdown at this point, and it is they who later may learn to speak and find pleasure in it, but have difficulty in using it to influence their world, even by asking for simple needs to be fulfilled. A proportion of these children may remain for years at the stage of "parrotting" what other people say; they may sing a large repertoire of songs very accurately, but not be able to hold a conversation. These children may often be the ones who don't initiate purposeful activities, but wander round in apparently aimless fashion. Inner language helps *all* children to control their actions and make them purposeful, but need not be based on words. However, to achieve it, it seems that life itself must develop some meaning from the beginning, through the formation of a personal relationship and the sort of non-speech communication and emotional and physical well-being that go with it, the building of a body image and other basic information about everyday life. Our handicapped children may have many obstacles such as the effects of prematurity, hospitalization, sensory defect, possibly other areas of brain damage and the emotional impact of the handicap upon his family, which prevent him from having an intact early experience. One must aim to attempt to help him to fill in some of the gaps, and the way this might be attempted is described in other sections of this booklet, covering all aspects of his development.

(*c*) There can, of course, be communication without speech. One is delighted when a desperately mentally and physically handicapped blind child somehow conveys by movements of his body that he wants to be swung or jumped. At least you know he is aware and wanting to take part. With some children it would seem that one needs to develop this kind of body language alongside the spoken word. With these children who do not acquire, or are slow to acquire, spoken language there may be a case for deliberately introducing "touch clues" alongside your spoken word. It gives them the possibility of an alternative method of very simple communication before they develop adequate speech. However, it will be important to study your child to decide whether you are making life too easy for him so that he doesn't have to produce words, and for how long you need to accept his other attempts at communication. Almost certainly, when children have a hearing handicap as well, one may need to use some form of sign communication. There are several publications which discuss this and make practical suggestions. (See Bibliography).

IDEAS TO ENCOURAGE AN INTEREST IN MAKING SOUNDS WITH HIS VOICE

(*a*) At the baby stage, let the child feel your mouth as you talk or play games of talking on his cheek or making repetitive sounds like "baa-baa-baa", etc.

(*b*) Copy any simple attempts the child makes at vocalising. Sometimes this can develop into a sort of conversation in voiced sounds.

(*c*) Introduce animal noises. Sometimes these amuse the children so much that they attempt to reproduce them.

(*d*) Give him cardboard cylinders (from inside of Bacofoil, toilet tolls, etc.). Encourage him to blow and hum into them.

(*e*) He may enjoy making noises with his head in an upturned plastic bucket. (Not all children will take to this, however).

(*f*) Put a balloon between his hands and against his mouth. Play at making noises from your side or encourage him to feel the strange sensation on his lips as he makes a sound.

(*g*) Play at blowing down straws or rubber or plastic tubing into a large bottle of water, or blowing into a whistle or trumpet.

(*h*) If a child is interested in making voiced or lip or tongue sounds, copy when he does so and try to organise a sort of "sound" conversation, but try to introduce rhythms into it, and whilst the child may imitate some sounds you try to introduce fresh ones in the middle of the game.

(*i*) At the same time as one calls a name or issues a command or makes a comment, tap out the rhythm of the words. Encourage the child to do the same. Very occasionally words may appear with the rhythm.

(*j*) Blind children enjoy rhymes and songs just the same as other children. Some quite mentally handicapped ones seem to reproduce tunes quite accurately yet not produce the words. Others seem to have a remarkable memory for words of songs and no other language facility. One must beware of thinking this is proof of high intelligence or good language ability. However, one can often latch on to this interest in tune and rhyme to encourage them to talk where difficulties persist. For instance, one can issue commands or ask questions to a tune of a well known nursery rhyme. Occasionally this produces a much more alert and interested response than the spoken word and there are some children who will start to talk relevantly by producing a word or two in song. It amuses them to talk in song.

PLAY

Play is the natural way for a child to learn. Through play a child is given the opportunity to develop manipulative and motor skills; he learns to concentrate, to try out new ideas, to foster his curiosity, thus exercising his initiative and imagination. Playing helps a child to acquire patience, to develop independence and self-confidence, to practise grown-up behaviour and to develop a sense of control over his world.

Language and speech play a considerable part in helping a child to come to terms with incidents which are (perhaps) frightening to him. In reconstructing such an experience—perhaps a hospital visit, or maybe a fall into a hole in the road—in his play and in verbalizing or "talking out" the sequence of events which occurred, the child is developing this sense of control over his environment and he learns to understand his fears and emotions.

A child's playing extends through many stages—from the early "mouthing", playing with his body parts, the smelling, banging, squeezing of toys, through the investigation and exploration stages when cupboards, drawers, containers of various kinds and stairs, steps, paths, furniture, etc., are thoroughly explored, right through to the destructive, creative, adventurous and imaginative stages. These stages are repeated many times through adolescent "hobbies" into the wide variety of leisure-time pursuits of adulthood. Each of us had a deep, innate urge to "play" whatever our age!

All children must destroy before they can learn to create. Two reasons for this destructive stage are, firstly, because children cannot understand objects or the way they work until these objects have been reduced to their component parts. Secondly, children get great satisfaction from positively changing things into something else; thus, a blank paper must have a scribble put on it.

It is essential therefore that a blind child, too, should have the opportunity to destroy things in order to learn what parts make up the whole object, to learn about the weight, shape, size, movement, texture and so on of each of those parts, and incidentally, to learn new words in association with them. Thus language experience benefits through the child's play.

Next, a sighted child begins to create. He does so in a variety of ways—sand castles, towers of bricks, plasticene models, painting, creating models out of junk materials—all are ways of changing one medium or shape into another. Often, what is created by the child bears no resemblance to the adult's idea of that object, but the task has given the child the opportunity of exercising his imagination, his muscular skill, of developing his abilities to think and plan, and of learning basic facts about the particular material, or combination of materials, used in the construction.

Again it is essential that a blind child should, like his sighted peers, be encouraged and helped to create things. What he creates, and what language he uses to talk about what has been created will, of course, depend upon his experiences and the extent of early explorations.

Imaginative play overlaps considerably with creative and imitative play. Children enjoy "helping Mummy or Daddy" with household chores—dusting, digging, feeding baby, repairing the car—all are activities which help a child to practise "grown-up" skills. From this stage, sighted children move to the more complex stage of imaginative play where any object, utensil or dressing-up garment will spark off an idea, and these items become what the child wishes them to do. The child will play out frightening or pleasant experiences; his world will be transformed—he is no longer in the lounge or bedroom in his thoughts, but he may well be "a fireman with a helmet on his head rescuing a dog from the pet shop engulfed in thick grey smoke" and the object which set the child's imagination to work might well have been a sand bucket.

It will be seen that for the blind child, this important stage in his development will depend greatly upon the opportunities he has had for direct experiences, the stories that have been told to him, the explanations which have been given in response to his incessant questions of "What is that sound?", "Why is there a funny smell?", "What makes it work?", and so on.

At this stage, too, miniature toys such as doll's furniture and dinky cars are used by sighted children to create a different world. Such miniature toys mean very little to a blind child because, for example, "a car" means the texture of the upholstery, the sound of the engine, the clicking of indicators and the smell of petrol—he cannot grasp the idea of a large metal shape in its entirety. He can be aware only of the small part he touches separately with each hand as he explores the bodywork; he has no concept of length, width, height or depth.

Adventure play "in its simplest form is the overcoming of obstacles, mental and physical, and the gaining of new skills whilst exercising every available muscle with such co-ordination as already exists" (E. M. Matterson).

All children develop self-confidence and specific motor skills through indulging in varied physical activities such as climbing, swinging on ropes or ladders, balancing, jumping, crawling, racing and swimming to name but a few. Naturally, adults will ensure that obstacles to be climbed or jumped upon are structurally sound. The blind child will enjoy these activities equally as much as his sighted peers if he is allowed to examine carefully the rope ladder, the tree trunk or the balancing bars before being encouraged to attempt the activity itself. Like the sighted child, the normal blind child will attempt only what he knows he can manage at a particular stage.

Many of our multi-handicapped children will have restrictions imposed upon them by physical disability but, wherever possible, they should be encouraged to slide along benches, crawl into boxes, barrels or tunnels, stretch over from one box or chair to another, balance on mats, bricks or tins as stepping stones, pull themselves over one type of obstacle on to another at a different level, etc., even when this means that the child's limbs may have to be manipulated to enable him to succeed. With praise for effort and every little stage successfully completed, the blind child will be motivated to "try again" and to achieve more.

It will be seen that at each stage of this essential play experience, a child may be stimulated mentally as well as physically; he is able to perfect a number of different skills, he is able to develop self-confidence, he is increasing his vocabulary and his command of language may be widened and made more purposeful through every activity. Every situation provides an

opportunity for language building, and deliberate attempts should be made to see that the child has experience with the language of the body, of space, shape, size, length, weight, texture, heat, movement, etc.

TOILET TRAINING

This is another area of training where a *routine* is necessary, and it is the problem which concerns parents most, particularly where a mother has been attempting to potty-train her child over a long period of time without success.

Let us examine what is required in potty-training normally:

(1) Maturity of the central nervous system, because:
   (*a*) The child will not be able to control bladder and bowel movements until the muscles controlling these organs are sufficiently developed to do their intended work.
   (*b*) A child will not be able to sit alone on his potty, or on a lavatory seat, until he has head control and body balance, and can sit with his hips and knees bent and apart, with his feet flat on the floor. He also needs the ability to bring arms forward to hold on to a support, if the child is physically handicapped.

(2) Feeding difficulties will delay the training process—unless the child is capable of eating and drinking sufficient quantities of food, then there will be nothing to stimulate the bowel and bladder reactions. (The importance of providing a semi-solid diet, quickly followed by a normal diet of solids, has been stressed elsewhere, with regard to language development also).

(3) Bowel control is achieved before bladder control.

(4) Boys usually take longer to train than girls.

(5) The child will usually learn to keep himself dry and clean by day before night-time training is achieved successfully.

(6) One should remember that normally the non-handicapped child is not toilet-trained completely (*i.e.* dry and clean by day and night) until he is about 3½-4 years old. The normal blind child, with no other problems, may achieve independence in caring for himself in the toilet at about 4-5 years.

(7) A quiet, relaxed mother will achieve success with toilet-training of her child more quickly than the parent who is tense and over-anxious, who worries over this aspect of her child's development and increases the tension in herself and in her child by "nagging" and angry reprimand.

The mother's anxiety is communicated to the child, who may then learn that he gets more attention from her (or from some other adult) by withholding his faeces or urine—this is another "tool" to use against, or a means of manipulating, the adult.

(8) The potty or lavatory must be regarded by the child as a "friendly" object, and not as a "threatening monster". A relaxed, comfortable child will respond more quickly. Ideally, toilet training should be undertaken in the bathroom from as early as possible, so that the association between the place and the action required there becomes reinforced in the child's mind. This avoids the situation (particularly if the child is also severely physically or mentally handicapped), where the child has to "unlearn" a socially unacceptable habit at a later stage, perhaps when he is admitted to school.

Of course, it is not always possible, or convenient, in a normal household to undertake this training in a bathroom or lavatory, and toilet-training must be started in the kitchen or living room. There is no harm in this, provided that the situation does not continue past the time when the child is confident enough and is capable of indicating that he wishes to use the potty.

POINTS TO REMEMBER WHEN PLANNING AND ESTABLISHING A TOILET-TRAINING ROUTINE

A parent, having observed her child, and noted the frequency and times of his bladder and bowel movements, may see that a "pattern" is emerging, e.g. he may wet or soil himself at hourly intervals. This "pattern" may be an indication of "readiness", but one can only *hope*

to succeed—there is no way to guarantee absolute sucess of achievement. If failure ensues, then it is more sensible to postpone the training for a short time, and try again later.

If the child shows signs of discomfort in his wet nappy or trainer pants, then regard this as a "readiness' signal, take advantage of it, and try not to delay beginning the more serious training programme.

Try to ensure that:

(*a*) The child is not constipated—pain will not help him to relax. (The importance of a variety of different textured and solid food has been stressed elsewhere).
(*b*) He has eaten or drunk sufficient quantities of food and liquid of the right kind.
(*c*) The child is relaxed and comfortable on a warm potty—a young child is easily frightened by the experience of sitting on a cold surface.
(*d*) He is not left alone to sit on the potty when he is small.
(*e*) The potty (or seat) is firm and secure beneath his body.
(*f*) Mother (or another adult) is happy, relaxed, and willing to stay that way for ten minutes at a time, at frequent intervals throughout the day.
(*g*) Every little response to the training is rewarded by lavish praise and encouragement.
(*h*) Wet nappies, pants and sheets are removed quietly and calmly, without adverse comment or fuss.
(*i*) The height and size of the potty or lavatory seat is neither too high nor too low, nor too small, and see that the child's feet are supported by a box or platform if necessary, or that his knees do not touch his chin (pressure movements for bowel action will be "wrong" if this happens).
(*j*) The toilet paper is within easy reach.

When the child is happy to use the trainer seat on the adult lavatory, support under his feet whilst sitting, and for a physically handicapped child, a handrail or framework of wood around the lavatory to give added stability and support to his body, will help greatly. Encouragement and praise will help further.

Once a little boy is able to indicate his needs to use the lavatory, *i.e.* by holding himself, crossing his legs, or stepping from one foot to the other, etc., he should be helped to use the lavatory from a standing position "like Daddy" or an older brother or friend.

Every child should be encouraged to remove and place wet pants and knickers in the linen basket or bin, and, from an early age, the establishment of a *routine* is essential. After indicating his need, the child should be helped:

(1) by guiding his hands to remove his pants.
(2) to sit/stand steadily and comfortably to "perform".
(3) to wipe his own bottom if this is necessary.
(4) to replace (pull on) pants, or to discard the wet garment in the bin and fetch a clean, dry one.
(5) to pull the chain (or flush the lavatory by pressing a knob or handle).
(6) to wash his hands with soap immediately.

Again, this is the type of basic system used, and found to be successful, in the R.N.I.B. nursery schools over a period of several years.

For the very severely handicapped children, to whom we are referring in this booklet, it may be necessary to adapt potties and lavatories in order to provide a feeling of security.

Here are a few ideas which have proved helpful in some cases:

(1) Stabilise the potty by inserting it it to a cardboard carton fitted with a bar across one end on to which the child can hold.
(2) A type of potty armchair can be adapted from an old kitchen chair (with arms). The legs can be cut to the correct height to allow the child to sit comfortably with his feet on the floor. Slots can be fitted below the hole cut in the centre of the seat, into which a small plastic potty can be slid. Fixing the feet of the chair into heavy, wide lengths of wood (like skis) will help to stabilize this potty chair and prevent the child from tipping backwards. If the child is very small, or physically handicapped, it may be necessary to place a bar or strap across the front. A commode chair may be necessary for a big, grossly-handicapped child.

One useful little chair, complete with potty, is the Baby Relax Toilette. This costs £6·99 (June, 1977), and is a miniature lavatory, with seat and lid. (The lid when lifted becomes the back of the chair).

Other useful information on suitable utensils will be found in leaflets from the Spastic Society, The Disabled Living Foundation, etc. (See list of useful addresses).

These severely physically and mentally handicapped blind children to whom we refer may not become wholly toilet-trained until well past the accepted "normal" age of four years.

GENERAL HINTS ON FEEDING

INTRODUCTION

We are told by the "experts" that good feeding habits amongst those children who present no specific difficulties, are the result of some, or all, of the following:

(1) Close, early mother-child contact.
(2) An adequate "system", *i.e.* the child has no organic abnormalities.
(3) The mother is calm and relaxed at mealtimes.
(4) Advantage has been taken of the child's strong natural urges when they occur, *i.e.* his desire to bite, to chew and to hold the bottle or spoon himself.
(5) New flavours and textures of food have been introduced gradually during the period when the child's "taste buds" have not fully developed.
(6) Encouragement has been given to early finger-feeding and its "messy" aftermath, in a quiet, unhurried atmosphere with a mother who has not fussed.
(7) The mother has not worried herself if her child showed no inclination to clear his plate at each meal. She has known he would not voluntarily starve himself!
(8) The child will have been weaned as more and more solid foods have been introduced into his diet.

In thinking about the feeding problems of the multi-handicapped children with whom we may be working, there are few who would be placed in the above category. So what is the result?

(*a*) A great many of the multi-handicapped children may have been premature, or "small for dates" babies, or there may have been difficulties at birth, which resulted in the child being placed in a special nursing unit. The very *early mother-child contact* is therefore severely impaired from the start, and if the child is hospitalized for a long period, then it is very difficult to overcome this early deprivation.

Once the child is brought home, there are many adjustments which have to be made by both mother and baby (*i.e.* handling, routines, emotional reactions of parents, family and friends, etc.). Unsatisfactory progress in these aspects delays the bonding process.

(*b*) This is one thing that very few of the multi-handicapped children possess. What constitutes an adequate "system"? One can define this as a body in which there is no physical defect to impinge upon the normal responses of sucking and swallowing, biting and chewing, or to effect the muscle-tone, thus preventing the child from maintaining head and trunk control with sitting balance, or preventing controlled hand/eye and hand/mouth co-ordination.

(*c*) The mother of a multi-handicapped child cannot feel *calm and relaxed* at mealtime if she is anxious that her child is not getting sufficient nourishment or that he is not reaching "normal" developmental milestones at the time he should. If she is an experienced mother she cannot help but compare her child's progress with that of her other children or with that of her neighbour's son or daughter.

(*d*) This mother may well have attempted to establish a *feeding routine* but with little success, because her child hates food, or shows only brief interest in his meals. It may be that every mealtime becomes an ordeal for both mother and child because the physical disabilities make feeding a long, drawn-out process, or the child screams incessantly, or is disinclined to attempt to achieve self-feeding skills.

(*e*) Any attempt on the mother's part to allow the child to make a *mess at mealtimes* may well result in friction with other members of the family.

These, then, are the children with whom we are familiar, and the following hints are an attempt to offer a solution, of sorts, to some of the problems facing the mother, or teacher of a blind multi-handicapped child.

HINTS ON FEEDING FOR CHILDREN WITH FEEDING PROBLEMS

(1) Try to follow as normal a pattern as possible. A young child should be held when being bottle fed and not propped up in the corner of a chair or settee, then left alone with a bottle stuck in his mouth.

(2) If your child has poor muscle-tone and is rather "floppy" or is very stiff, place him on your lap so that his head is supported in the crook of your arm and his bottom rests between your legs so that his knees bend over one of your legs.

(3) At the stage when the child has good head control and sits with support, place him in a high-chair (or its equivalent), ensuring that his feet are comfortably supported by a foot rest (or flat on the floor). It is important to provide a tray or table which is the correct height for the child when sitting, so that good sitting posture is encouraged. This will help his sitting balance both when supported and unsupported.

(4) It may be that the child still experiences difficulty in chewing food at this stage. Sit beside him with one of your arms around him so that his head is in the crook of your arm. You can then keep the child's head forward and resist any tendency for him to throw himself backwards. Food on the spoon may then be placed into the side of the child's mouth with your other hand whilst the first and second fingers and thumb of the supporting hand are spread to close the child's mouth and help his jaw to move in a chewing action.

(5) When the child is ready for feeding from a spoon, hold him as described above (in suggestion 4), then encourage him to chew. By supporting his head with your arm and using the first and second fingers and the thumb on that hand, spread them out over the child's top and bottom lip, and under his chin to help him close his lips. Move your thumb up and back to help his tongue to retract (to close on the soft palate).

(6) If the child sucks poorly, make the hole in the teat larger and then stroke his upper lip to stimulate a sucking reflex. If he tires easily when sucking, give him milk and other fluids from a spoon on to the back of his tongue. This will ensure he gets proper nourishment and does not become dehydrated.

(7) Before going on to thickened foods in the bottle, it is a good time to begin to vary the flavours of fluids. It is possible to mix Bovril, tomato ketchup, orange or Ribena to foods to "disguise" those which the child might otherwise reject.

(8) Thicken the milk feed gradually by adding a little rusk or cereal to the bottle.

(9) It is sometimes helpful to try thickened food in the child's bottle at nights, as this will give him more nourishment to sustain him through the night.

(10) The sooner the child is chewing solid food, the sooner he will stop taking in air with his meal. Screaming causes a greater intake of air, which causes colic, which causes more screaming. (However, screaming is not always triggered off in this way).

(11) Finger feeding is a messy but essential part of the child's progress, therefore try to encourage him to bite and crunch a "finger" of rusk, toast or biscuit held at the side of his mouth. If this is not successful, a piece of melon or pear may be used instead.

Because of the direct link between chewing and speech, it is worthwhile persisting with this, however long it takes. It is helpful to be able to get assistance from a speech therapist in establishing chewing. Feeding, whether by finger or spoon, is a very messy business for some considerable time, but independence in feeding skills gives the child so much pleasure, and lessens the burden on mother and teacher, ultimately, so try to persevere with this. Cover the floor with a large plastic sheet or lots of newspapers, cover the child (and yourself) well, or alternatively, put him in easily washed garments.

(12) When you are spoon-feeding the child, you may find he reaches out to hold the spoon himself. This should be encouraged. Give him a spoon to hold whilst you put a spoonful of food into his mouth. Holding a spoon in this way helps him to "make friends" with this tool and he will be learning something about its weight, size and shape as he handles it. It may be some time before the child will accept, hold and control the spoon, and show more positive signs of wishing to feed himself.

(13) The following are helpful hints in training the child to use a spoon himself:

(*a*) Use hard plastic or metal spoon—small for small mouths.

(*b*) Sit behind, but slightly to one side of the child (to his right if possible, but this depends on whether or not this appears to be his preferred hand).

(*c*) Encourage him to pick up the spoon. Place your hand over his, and gently guide his spoon down into the dish and up towards the side of it. (A vertical sided dish is best). Help the child to take the loaded spoon up towards his mouth. Let him put the spoon into his mouth.

(*d*) As he becomes more proficient in this action, gradually remove your hand back towards his elbow, giving very slight support there until the child manages the action of raising a full spoon independently, to his mouth.

(*e*) With this achievement, encourage him to fill the spoon himself more frequently. At this stage the child may want to use his other hand to push his food on to the spoon. He may spill a lot as he lifts the spoon. Do not worry about the mess or what seems to you to be a "bad" habit. For a blind child it is a very necessary stage of learning to feed himself.

Because he often loses quite a bit of food in raising the loaded spoon to his mouth the child may become discouraged and need more persuasion and coaxing to hold his spoon. At this stage it is wise to intersperse some of his actions with a spoonful of food from your spoon.

Encouragement and praise plus lots of patience and good humour are the keynotes of successful training of every child.

(*f*) It may be that the child will master the skill of using a fork before a spoon if he has good chewing movements but poor hands.

If the child still has a tendency to arch his back when he lifts his arm to take his food to his mouth, give him support with your hand in the small of his back. This is preferable to fastening him in the chair with straps or harness. Some children may well need a small firm cushion behind them.

Feeding should give pleasure to both child and adult, and it is enjoyment of food which motivates the child to want to spoon-feed himself.

(*g*) Some children have very little saliva to help them masticate, and these children will find it helpful to have a drink to help them soften their food for chewing.

(*h*) "Mothercare" and "Boots" the chemists have produced sets of two spoons and a fork which seem to be a useful size for most children, and they are tough and can be boiled.

These forks can be used to give the child soft solids and later, a small piece of bread, nicely flavoured with jam, honey, or marmite, in the corner of his mouth when encouraging him to learn to chew.

A Mothercare spoon can be used for placing soft solids into the child's mouth after having previously massaged his gums, if the child is extremely difficult to feed.

(*i*) When spoon-feeding is very well established and the child has had some experience of "spearing" pieces of food with a fork, then the natural progression from spoon to spoon and fork can take place.

Learning to use a knife will follow, but not until the child has had experience of using it in other tasks, *e.g.* cutting plasticine, or dough, spreading soft margarine or butter, or jam on bread, cutting a bread slice into small cubes, etc.

Other helpful hints:

(*j*) A "Dycem" Anchor Mat under the dish will prevent it slipping; alternatively, use a dish with a suction pad.

(*k*) If the child has difficulty in gripping and controlling the movement of the spoon, it is sometimes helpful to build up the handle with DAZ modelling clay, or modelling wax, or foam rubber tubing, or Blue-Tak. The same built-up handle can be achieved

also by splicing a length of wood (such as part of a broom handle) on to the spoon handle.

(*l*) If the child s[illegible] has difficulty with holding the spoon or beaker, or in getting food to his mouth, consult a speech therapist or an occupational therapist, or ask for help from the local office of the Spastics Society, or ask for information from the Disabled Living Foundation, which has a permanent display of aids of various kinds.

DRINKING

(1) Closure of the lips around the teat is essential for an efficient sucking action, and also for later development of drinking and chewing.
(2) If sucking is weak, stimulate by slight pressure and gentle stroking on the child's top lip whilst he is sucking.
(3) If the baby is not able to maintain sucking because his muscle-tone is insufficient, the sucking reflex will be stimulated by feeding liquids from a spoon on to the back of his tongue.
(4) When transferring from a bottle to a cup, a proper cup is preferable to a beaker with a spout, as the use of a cup will encourage the child to swallow properly.
(5) Put only a small amount of liquid in the cup at a time, so that the child does not choke or get drenched.
(6) Do not keep the beaker in the child's mouth for long periods, or he will have difficulty in breathing. (Double-handled plastic cups are available from the Spastics Society and good chemists' shops. If a small rounded piece a (light curve) is cut out of the front of such a cup, it will not catch his nose).
(7) Try to get the cup quite far back in the child's mouth so that its lip is keeping the tip of his tongue down, thus overcoming "tongue thrust".
(8) Put both his hands around the handles, but encourage the child to keep his thumbs up the side of his cup. At first, place your hands over the child's on the handles of the cup, with thumbs up the side. This grip should encourage a favourable position whereby the child's head comes forward. He should *not* have it tilted back.
(9) If *the child* controls the process, he will be able to stop and breath when he wants to.
(10) Vary the flavour and temperature of his drinks.

ENCOURAGE THE CHILD TO HOLD THE CUP BY HIMSELF

(1) When the child is able to hold objects with both hands, remove the support of your hands gradually. It may be necessary to help him tilt the cup by putting your fingers lightly on its bottom. Eventually stop doing this.
(2) When he is able to reach to pick up things with both hands, either hold the cup in front of the child so that he can reach for it, or put it down on the table before him with suitable comment.
(3) When the child has had enough, encourage him to "Give to Mummy" (or teacher), and try to prevent him developing the habit of dropping or throwing the cup.
(4) Train the child (with suitable praise) to "put the cup on the table".

SELF-HELP SKILLS

We have discussed elsewhere in this booklet the reasons why blind children need to be encouraged to use both hands together, their need to develop an awareness of the power of their body, and why other senses such as smell and touch should be coaxed into a high degree of sensitivity. In the area of self-help skills, the reasons become still more clear:

The child must know the parts of his body before he can start to gain independence in washing, feeding and dressing himself.

In addition to head/trunk control and balance, he requires a fine degree of manipulative dexterity if he is to succeed in undressing or dressing himself.

(1) **Undressing will be the first stage**, so let us look at what is required in this activity:
(*a*) removes socks/shoes, first as an isolated activity, then later as a definite act of undressing.

(*b*) Pulls arm out of coat sleeve; then both arms.
(*c*) Removes cap or hat from own head.
(*d*) Pushes pants down. Thumb on either side of waist band. Child's hands to be manipulated, if necessary. Later pulls down all the way.

(2) Then **dressing**:
(*a*) Ability to use both hands simultaneously in some activities, *e.g.* pulls pullover, vest over head, buttons buttons, zips, laces buckles, etc., pushes knickers or trousers down or up.
(*b*) Fine finger movements for buttons, pop fasteners, buckles, laces, toggles, velcro.
(*c*) Ability to hold one part of garment steady in position in order to pull on or off or fasten with the other, *e.g.* socks, coat, zips, shoes, puts things in/out pocket.
(*d*) Knowledge of up, down, in/over, left and right, top, bottom, front and back, inside/outside.

(3) The blind child will need to learn the difference in *textures* of clothes so that he can distinguish one garment from another, and will need help to recognise whether the garment is inside out or back to front—therefore, small but distinctive marks (embroidered cross stitch or double zig-zag, etc.) are helpful.

(4) Also **organization**. *i.e.* an ordered sequence to be followed as clothes are taken off is vitally important in helping the child to become *confident* and *competent* in this skill of dressing independently.
(*a*) Therefore, try to establish a routine for the removal of clothes and a corresponding order for dressing the following morning, *e.g.* Take off shoes, socks (now tuck socks into shoes), trousers, shirt or pullover, pants and vest.
Put-on: vest, pants, socks, shirt, trousers (now tuck in shirt ends), shoes.
(*b*) If the child is encouraged to lay or fold clothes with back uppermost (remember the distinctive embroidered X will be easy to find), this should eventually lead to his putting garments on correctly.

(5) This early organisation training demands a great deal of patience on the part of the adult, but encouragement, praise, persistence, patience and time given to acquisition of these skills ensure a solid foundation for social competence, pride in appearance and confidence and independence in adolescence and adult life.

(6) Each child is the more satisfied and happier with every skill that he masters. Here is an example: *How to put-on a T Shirt*. The child must:
(1) Select T Shirt from ordered collection of garments.
(2) Find the arm and neck holes.
(3) Find the back of the garment.
(4) Check that it is the right way up and is not inside out.
(5) Place arms and head in appropriate holes.
(6) Push head/arms through.
(7) Pull garment down over shoulders and, if necessary, tuck bottom into skirt or trousers.

Where the child is also physically handicapped, one must remember to teach the child to put his damaged hand into the sleeve first. He may need to practise "pushing down" with his thumb tucked inside a garment, helped by the first outside.

(7) The physically handicapped blind child may find it easier to achieve independence in dressing if neck bands have elastic woven into the material, or a garment has a polo-neck. He may cope more easily with trousers if these have elastic at the waist rather than buckles or buttons. It may be that velcro should be used as a substitute for buttons and zips. The physically handicapped child may also find it easier to dress or undress from a sitting or lying position.

Useful hints on helping physically handicapped children will be found in leaflets obtainable from the Spastics Society or in a book by Nancie Finnie (see bibliography).

Ask your physiotherapist to explain to you any specific difficulties with which your child is having to contend and which may prevent him from achieving this particular

self-help skill. Seek her advice on ways of overcoming these difficulties, *e.g.* because of his specific handicap he cannot grasp when his arms are straight out in front of him, or his balance may not be secure enough in sitting, and he has to drop whatever he is holding to use one or both hands for support.

(8) It is important to use the language of dressing, *e.g.* "arms up", "push your head through", "pull your socks up", "waggle your toes" (for socks), as you help the child to perform the act. Frequent practise of these actions through placing necklaces over head, large quoits rings on head or foot and pulling along leg to thigh, putting arms through several colourful bracelets, getting into "workaprons" cut from mother's old plastic or nylon mackintosh and fastened at the back, play with scarves, hats and adult size shoes will all encourage the movements required in dressing/undressing. A long canvas or felt waistcoat, larger than the size of cardigan normally worn by the child is another useful aid in giving practice with fastenings. Put several sizes of buttons and buttonholes down the front, make several patch pockets and use a zip, large snap fasteners, buckles and toggles with braid loops to close the pockets. Pieces of velcro across sideseam slits or under lapels to hold these down or very large hooks and eyes will give experience of another kind of fastening which may be used on your child's clothes. This waistcoat can then be worn by another child or put on a large teddy bear, and the blind child can practise these important skills in a play-way before he needs to try to fasten his own clothes. It is much more difficult to learn to fasten buttons on your own body so experience of fastening Mummy's buttons or teddy's buttons, etc., is invaluable.

(9) The main point to remember in any training in self-care such as dressing, toileting, washing tasks, etc., is that one establishes a *routine* and an order of dressing or washing (*e.g.* cleaning teeth, washing arms and face, then hands, body, feet and toes at bathtime, followed by hairbrushing or combing). At a Sunshine House Nursery School, each child has his own toothbrush, mug, face cloth, hairbrush and towel. These are kept in the same place, always, with face cloth and towel hooks which have the same solid symbol (*e.g.* a spoon, or string of buttons, a toy car or bell, etc.) at the part of the shelf where toothbrush, mug and hairbrush are kept. This is an essential part of a blind child's training in such a nursery for several reasons:

(*a*) it is part of the training in tidiness and "personal organisation" which is so necessary for a blind person's day-to-day living.

(*b*) it is more hygienic for a child than using a communal towel.

(*c*) it is a point of location and helps in independent orientation as well as training memory.

The same symbol should also be used on the child's coat hook so that he has another aid to location and personal independence.

With toothbrush, mug and hairbrush it is helpful to the sighted staff involved with perhaps two blind children in a group, to have the children's names written in indelible pencil or ink on a strip of elastoplast encircling the mug or handle. This ensures that the right brush goes back to the correct mug.

BEHAVIOUR DIFFICULTIES

Some children develop certain behaviour patterns which are not easy to manage. It is hoped the following ideas may provide some clues about what to do, but bear in mind there are no easy answers.

1. HEAD BANGING

It seems that this is usually associated with either pleasure or pain, or perhaps the desire for attention. If a child persists in this habit, you must first try to find out of he is in pain by requesting a medical examination to see if he has anything specific wrong with him. If not, he will probably be given an E.E.G. to find out if he has any unusual brain rhythms. This may be followed by helpful medication.

If he seems to be doing it for pleasure, you should provide other interests and pleasures and additional relaxed attention. The habit then usually disappears wholly or partially. However, there are some who persist, in which case it may be necessary to ask your doctor to order a foam rubber bonnet for him to wear during the day. Propping a pillow behind the banging head of a fairly static child has occasionally resulted in him giving up the habit when he is in bed.

2. **SCREAMING**

(*a*) If your child screams all through the night, perpetually, it is essential that you consult a paediatrician, as the family cannot cope without sleep for any length of time. He may be able to offer help. If you do not have regular advice from a paediatrician (child specialist), or have never seen one, ask your family doctor to help you get an appointment.

(*b*) Try to discover a pattern. Does he scream at certain times or in certain circumstances? Is he in pain? Is he a poor feeder, suffering from hunger or colic? If that is the case, medication or improving his feeding habits may be the approach. Screaming causes a child to take in a larger intake of air, which makes a colicky pain more severe. It is a vicious circle.

(*c*) All children scream at some time or other. One who lacks early methods of communications may use screaming to demand attention. He soon learns that you don't like it, and uses it as a weapon to get you to give in to demands that you would consider unreasonable, and cannot and should not meet just so that he will shut up. Signs of this sort of screaming might be:

(i) He may give up screaming for a few seconds, as if listening to see what effect he is having.

(ii) He may be easily distracted by something else which is interesting.

Anticipation of all kinds of situations where this sort of screaming might occur, is helpful, so that as soon as there are any signs that he is going to start, sidetrack him by singing, tickling, energetic handling, going out to the swings, etc.

(*d*) Is your blind child screaming because he is frightened? Loud noises, new routines, being left alone without focal reassurance, are all situations in which a blind child may be very apprehensive. Usually this reaction dwindles as familiarity with noise sources, new materials and new routines are built up over a period. (See chapters on Auditory Training, Use of Hands, etc.). However, there may still be many times when he needs to have his anxieties allayed by hearing your voice. Apart from this, such children seem to feel much more secure if they get firm, consistent, handling.

(*e*) It seems that some children are upset at certain times of the day. It could, of course, be for reasons mentioned in (*b*). On the other hand, one suspects that some children take a long time to wake up fully in the morning and dislike being "messed about with", while others who are co-operative and energetic in the morning, tire later and scream if approached. In that case you need to take advantage of his good times, and during his disturbed periods let him be in a quiet, calm, secure atmosphere, perhaps with someone he knows well, talking or singing to him. However, you may find your child responds in quite a different way.

(*f*) We have sometimes found that our children scream in situations where they do not know what is to happen because they associate the word spoken to them with a less pleasant event and have not the language or life experience to realise that similar words can be used in widely differing situations, *e.g.* a little boy was out on an excursion; he reached some stairs and was told "Go up the stairs, John". He started to scream and to refuse to do so and said "Go up the stairs to bed, John". When he was told "No, not to bed" he went up the stairs quite happily. Because of the barrenness of his experiences he had up to that time associated stairs only with bed. This only emphasises our need to richen our children's experiences of language and of everyday life. When coping with children who have not any speech we may often be misunderstanding them and they us.

3. THE CHILD WHO DOESN'T WANT TO BE HANDLED

Some children react strongly against close handling. Some stiffen, arch their backs and scream, others just stiffen and slide away from you. Again, it is hard to know why this should be and reasons are probably various, *e.g.*

(*a*) The child has frequent bouts of colic and is often in pain. One can probably understand the discomfort of being handled during a violent tummy-ache. Consult your paediatrician about any suspected illness.

(*b*) Blind children who were premature or sickly babies, who have spent their early months in hospital and possibly in an incubator, will lack early physical contact or handling experience with the mother. This is important to both mother and child and may, combined with the emotional experience of a mother in having a blind child, cause a breakdown in the physical relationship of the child with the mother. Later, whilst energetic physical play may be accepted, close physical contact may be rejected.

It seems that a long stay or several short stays in hospital in early babyhood may cause a similar breakdown. A baby's relationship with his mother matters more than anything else in his life, but in hospital he has been in a lonely alien world: this is an even more acute situation for a blind child. He has to be brought back gradually to react normally, and his poor mother may be "on approval" for a considerable time.

(*c*) Some children handicapped through maternal rubella in the early months of pregnancy, who are also early "back archers", seem to dislike being handled; so do athetoid children and some hydrocephalic children with physical handicaps.

The only solution seems to be a gradual patterning of them towards being handled, starting with a routine of regular short periods and finding some reward which they learn to appreciate as they mature. In some cases, it has been found advantageous to "flood" them with cuddling, caressing, etc., ignoring the child's protests. Some children have eventually come to enjoy this kind of attention.

4. UNUSUALLY OVER-ACTIVE CHILDREN (HYPER-KINETIC)

These children are difficult to contain within the normal home, particularly where there are other small children to attend to, or there is a strong emphasis on tidiness, or rooms are small and there are many potentially dangerous objects about. They are easier to handle in the space of a school, but even then they create many disturbances.

They have difficulty in attending to one thing at a time, and their attention is continually being attracted to other activities. The classic answer to their problem is to cut down the amount of stimulation available at any one time and to minimize other disturbing distractions. It works to a degree but is rarely the complete answer. A consistent routine and firm handling by one familiar person with a high degree of tolerance helps. Useful information can be found in William Cruickshank's book (see bibliography).

5. "REMOTE" CHILDREN

There are some children who seem to be content in their own world. They wander around without seeking attention from anyone. They may crouch in a corner, assume an odd attitude or spin around on the spot. They may have a favourite object from which they don't want to be parted or carry out strange mannerisms or feats of skill. They are withdrawn from normal emotional contact with people, which further disturbs their personality development and intellectual function.

It seems that the most helpful method of approach is the most natural one, whereby everyday life situations are carried out with the child with one understanding person, with whom he can relate and who will, within a fairly definite routine, help to remove fears about situations he probably feels to be threatening.

6. OBSESSIONS

Obsessions can be part of a pattern of emotional disturbance. Children observed have been noticed to have had obsessions about a wide variety of things—hens, cushions, bottles, shells, plates, string, cars and no doubt there are many more. They seem to get sensory pleasure from them and occasionally they can be used as a basis for learning situations. The boy with the

obsession about hens was encouraged into bird and egg productivity involving learning about feeding; this led into number work, and eventually he raffled an oven-ready chicken at this school's Christmas Fair.

7. GENERAL GUIDANCE FOR DISCIPLINE

Blind children need to be given limits to their behaviour just as much as sighted ones. As a guideline, dangerous situations or ones which are totally unacceptable in a *very* tolerant atmosphere cannot be allowed. Don't think you are being any more hard on a blind child whom you are stopping from going beyond the limits of human endurance, than you would be to a sighted one. *All* children feel *more* secure if they know what the limits are. They will benefit by becoming more socially acceptable to others.

WHERE DO WE GO NOW?

If one has been able to achieve some measure of success with much of what has gone before, your child is growing out of the baby stage and is ready for more advanced goals.

What are they? What skills does he need now to reach them? How does he acquire these skills? First and foremost through real life experience: "educational" toys have a place, but keep them in perspective. They must never become aims in themselves, but are only an intermediate step providing practice in certain skills and areas of understanding needed in everyday living.

Let us consider some possible objectives.

1. SELF-HELP (PERSONAL COMPETENCE)

Feeding, dressing, toileting, washing self, cleaning shoes, hair and dental care.

2. SURVIVAL SKILLS

Knowing name and address, preparation of simple meals and drinks, use of telephone in emergency, simple first aid for minor accidents, knowledge of everyday dangers (*e.g.* traffic)

3. COPING WITH SIMPLE HOUSEHOLD TASKS

Tidiness (vitally important to a blind person), bed making, cleaning, simple laundering, washing-up, care of small child, shopping, some knowledge of money, coping with callers to the house.

4. SOCIAL RELATIONSHIPS AND LEISURE PURSUITS

Simple manners, concern for other people and acceptable behaviour.

Table games (these may be ordinary games available commercially, or versions of them, or special ones made for blind people and using texture, shapes, strong colours, etc.), radio, records, tape cassettes (for communication with family and "pen-friends"), music, going to clubs and pubs, swimming, walking, camping, arts and crafts, television, horse-riding, dancing, caring for pets, gardening, simple carpentry, use of telephone, scouting and Church are all possible activities.

5. GENERAL KNOWLEDGE

Starting from a very basic knowledge and understanding of one's own immediate environment, build up a widening knowledge through the study of everyday things. This is important because these children will probably not become literate and their greatest pleasure is likely to be in chatting and listening. The greater their experience of day to day things, the richer will be their social contribution. A scheme which is regularly used at Condover Hall (a school for blind children with additional handicaps) is carried out in a two-year cycle and involves study, visits, etc., on all aspects concerning everyday life, *e.g.* (*a*) living things, (*b*) food, (*c*) transport, (*d*) communication, (*e*) the house and its equipment, (*f*) other people's houses, buildings, etc.

These are studied at whatever level an individual child is capable of, from very basic to much more advanced (involving chemistry, biology, physics—but these high-sounding names may never be mentioned).

The list may seem to be too ambitious a programme for the child you know. With the most handicapped you may be right, but with others remember that life and education does not end tomorrow, or next year, or at sixteen when the blind child leaves school. What may seem to be impossible aims at six years may well be possible at twenty-six! Alongside your knowledge of the severity of a child's handicaps try to keep a broad and long term view.

Each of the many objectives listed require early methodical training to lead to success in the skills required for each task. The list is endless, but here are a few examples:

Feeding

(i) Head control and sitting balance.
(ii) Awareness of position of mouth.
(iii) Chewing ability.
(iv) Grasping and releasing.
(v) Reaching.
(vi) Upward and downward arm movements.
(vii) Simultaneous use of both hands for manipulation of tools.

Use of Telephone

(i) Some means of moving from place to place.
(ii) Ability to locate telephone.
(iii) Use of index finger independently.
(iv) Ability to grasp and lift and hold steady the receiver to ear and mouth.
(v) Good muscle tone in hands and fingers.
(vi) Ability to count to 9.
(vii) Familiarity with the dial.
(viii) Co-ordination of both hands for holding receiver and telephone, when dialling.
(ix) Ability to recognise various dialling tones.
(x) Putting coin in slot (finger/thumb apposition/muscle tone. This shows the relevance of earlier posting box and pushing experience).
(xi) Ability to give name and address and relay a simple message.
(xii) Putting down and releasing receiver in correct position.

Shopping

(i) Ability to ask for product (language).
(ii) Differentiation of coins (size, shape and texture).
(iii) Ability to open purse (clip or zip manipulation).
(iv) Coin extraction and counting may involve fine finger movements, particularly index finger and thumb.
(v) Understanding the need for giving money, receiving of change.
(vi) Recognition of objects purchased.
(vii) Ability to put purchases into shopping bag or basket safely if necessary.
(viii) Responsibility for carrying purchase(s) home.
(ix) Controlled physical discipline in the shop and recognition of what is normal socially acceptable behaviour.
(x) Law of property, *i.e.* that ownership of article does not begin until payment has been made.

EDUCATION

(1) See R.N.I.B. pamphlets on the education of blind children.
(2) The children referred to in this booklet have many handicaps. *Learning* is their major one which with visual, and probably physical and/or developmental handicaps as well, produces added complications.

(3) Some will need to go to a special boarding school for blind children, but many will probably be most correctly placed in an E.S.N.(S.) school because there the teaching staff are geared to severe learning problems.

(4) However, having said this, it seems to be clear that such pupils do need additional facilities because of their visual handicaps and the following comments should be made:
   (i) More often that not multi-handicapped blind children do not do anything constructive without direction. Left to themselves, they tend to remain unstimulated.
   (ii) They need to relate to only one or two people in a special way rather than to several people. These special people need to handle them in the same agreed, firm, consistent way.
   (iii) Opportunity for frequent discussions with the parents to ensure continuity of handling must be possible. Notebooks passed back and forth from home to school are a good idea.
   (iv) If they are not stimulated by visual things, sound is not necessarily a substitute. Noises tend to be confusing rather than stimulating.
   (v) Excessive noise can be very confusing and frightening to an already confused blind child. Remember that whilst one can shut one's eyes if one does not want to look, one cannot easily shut one's ears if one doesn't want to hear. The result of distress through confusing noises is that a child can show his fear by screaming or by retiring into a safe, passive world where he needs to do nothing.
   (vi) Continuous background noise from a record player or radio blunts the hearing of the most normal active blind child who is so dependent on acquiring a high degree of auditory perception for *all* learning, so how much more will it restrict the learning processes of a blind child with a severe mental handicap.

(5) Ideally, a teacher working with these children requires the special knowledge and expertise of a teacher of the mentally handicapped, who has also had the opportunity to gather information and skill and possibly obtained a supplementary qualification in teaching blind children.

A few experiments are being carried out in schools around the country. It is not clear at present whether it is better to gather the children dispersed among several E.S.N.(S.) schools in an area as a special class into one unit, or withdraw children regularly from their normal classes in a Resource Centre, or use a mixture of both systems. Much will depend on individual circumstances, the locality and transport.

In whatever way the children's programme is organised, the teacher already experienced in teaching mentally handicapped children will need to:

(*a*) Devise programmes for each individual child, because the factor common to all these children, apart from a visual handicap, is that they are all totally different.

(*b*) Have some quiet area, a sort of "Resource Centre" within the school, where he can:
   (i) withdraw children for individual work.
   (ii) keep equipment specially chosen to help carry out the programme.
   (iii) have, if possible, a visual training room which can be darkened if necessary and be equipped with special lighting effects.

(*c*) Have enough reliable staff working with him, who are able to carry out consistently, individual programmes under the "resource" teacher's guidance. The best pieces of equipment are people so far as these children are concerned!

These are only suggestions. Many alternative strategies will be evolved: the important thing is to make the best and most imaginative use of all the resources, the staff, and the goodwill available.

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"Hypotonia in the Blind Child": JAN, ROBINSON, SCOTT and KINNIS (*Develop. Med. Child Neurol.*, 1975, 17, 35-40).

"Applied Behaviour Analysis in the Treatment of Childhood Feeding Problems": PALMER, THOMPSON, LINSCHEID (*Develop. Med. Child Neurol.*, 1975, 17, 333-339).

"Play and Reality Essentials of Educational Planning for Blind Retarded Children" (*Education and Training of the Mentally Retarded*, December, 1976).

The Next Step on the Ladder—Assessment and Management of the Multi-Handicapped Child—Parts I and II: DIANA MAIDEN (Institute of Mental Subnormality).

Out of Isolation—Introductory Notes on the Education of Deaf/Blind Children: TONY BEST (National Association for Deaf/Blind and Rubella Handicapped, 1976).

Understanding the Deaf/Blind Child: Peggy Freeman (Heinemann Health Book, 1975).

The Perceptual World of the Child: TOM BOWER (Fontana, 1977).

USEFUL ADDRESSES

1. Royal National Institute for the Blind: 224 Great Portland Street, London, W1N 6AA. They will supply useful pamphlets on request. In addition specific advice for individual children can be requested from their Advisory Service.
2. National Association for Deaf/Blind and Rubella Handicapped: Mr. J. P. Owen, The Secretary, 164 Cromwell Lane, Coventry, CV4 8AP. They have some publications, a regular newsletter and local branches to arrange meetings of parents, professionals, etc.
3. The Partially Sighted Society: 40 Wordsworth Street, Hove, E. Sussex.
4. National Deaf Children's Society: 31 Gloucester Place, London, W1H 4EA.
5. Royal National Institute for the Deaf: 105 Gower Street, London, WC1 E6.
6. National Society for Mentally Handicapped Children: Pembridge Hall, 17 Pembridge Square, London, W2 4EP. They publish useful pamphlets. There are many local branches which run playgroups, etc.
7. Institute for Mental Sub-Normality: Wolverhampton Road, Kidderminster, DY10 3PP.
8. Spastics Society: 12 Park Crescent, London, W1N 4EA. They publish useful booklets and supply a few aids.
9. Association for Spina Bifida and Hydrocephalus: Devonshire Street House, 30 Devonshire Street, London, W1N 2EB. They publish useful booklets and have local branches.
10. Voluntary Council for Handicapped Children (at the National Children's Bureau), 8 Wakley Street, London, EC1V 7QE. Their booklet *Help Starts Here* is particularly useful.
11. Exhall Grange School, Wheelwright Lane, Coventry. They publish useful leaflets.